Prepared for

Armstrong World Industries Lancaster, Pennsylvania

Prepared by

Ramboll US Consulting, Inc.

April 2021

Project Number **1690018899** 

# POST CLOSURE FIVE YEAR REPORT ARMSTRONG WORLD INDUSTRIES OPERABLE UNIT-1 (WWTP LANDFILL)

# MACON, GEORGIA USEPA ID# GAN000410033



Ramboll US Consulting, Inc. 1600 Parkwood Circle Suite 310 Atlanta, GA 30339 USA T +1 770 874 5010 F +1 770 874 5011 www.ramboll.com



### **CONTENTS**

6.	REFERENCES	12
5.	CONCLUSIONS AND PATH FORWARD	11
4.3	Groundwater Analytical Results	9
4.2	Groundwater Sampling Methodology	9
4.1	Monitoring Well Replacement	8
4.	GROUNDWATER MONITORING	8
3.2	Landfill Repair Work	7
3.1	Landfill Inspection Findings STOPPED	7
3.	LANDFILL REPAIR WORK	7
2.2	Inspection Findings	5
2.1	Inspection Requirements	4
2.	PERIODIC INSPECTIONS	4
1.2	Remedy Components Subject to the PRSCP	1
1.1	Site Description and Location	1
1.	INTRODUCTION	1

### **TABLE**

Table 1: Summary of Groundwater Analytical Results

### **FIGURES**

Figure 1: Potentiometric Surface Map
Figure 2: Groundwater Analytical Results

### **APPENDICES**

Appendix A: Inspection Documentation

A.1. PRSCP Figures

A.2. Inspection Checklists

December 16, 2017 June 22, 2018 December 24, 2018 March 19, 2019 August 16, 2019

June 5, 2020

A.3. PE Inspection Checklists and Photolog (October 7, 2020)

Appendix B: Landfill Repair Photolog

Appendix C: Groundwater Monitoring Data

C.1. Monitoring Well MW-06R Well Log

C.2. Groundwater Sampling Field Logs

C.3. Laboratory Analytical Data

### **ACRONYMS AND ABBREVIATIONS**

AIP Allied Industrial Park

AOC Administrative Order on Consent

ARARS Applicable or Relevant and Appropriate Requirements

AWI Armstrong World Industries

BRP Base Reinforcing Pad

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act

DOT Department of Transportation

DPT Direct Push Technology

EE/CA Engineering Evaluation/Cost Analysis
FMNOL Former Macon Naval Ordnance Landfill
FMNOP Former Macon Naval Ordnance Plant

GCL Geosynthetic Clay Liner

ID Inside Diameter

MCL Maximum Contaminant Level
MSE Mechanically Stabilized Earthen
NCP National Contingency Plan

NTCRA Non-Time Critical Removal Action
OM&M Operation Maintenance and Monitoring

OSWER Office of Solid Waste and Emergency Response

OU-1 Operable Unit 1

PCBs Polychlorinated Biphenyls
PCFYR Post Closure Five Year Report

PE Professional Engineer
PG Professional Geologist

PRSCP Post Removal Site Control Plan

Ramboll Ramboll US Consulting
RAOs Remedial Action Objectives
RAFR Removal Action Final Report
RAWP Remedial Action Work Plan
RSL Regional Screening Levels

USEPA United States Environmental Protection Agency

WWTP Wastewater Treatment Plant

### 1. INTRODUCTION

On behalf of Armstrong World Industries, Inc. (AWI), Ramboll US Consulting, Inc. (Ramboll [formerly Ramboll ENVIRON and/or ENVIRON]) has prepared this Post Closure Five Year Report (PCFYR or "the Report") for the Wastewater Treatment Plant (WWTP) Landfill, which is Operable Unit 1 [OU-1]) of the Armstrong World Industries Superfund site located in Macon, Georgia. This Report presents the operation, maintenance, and monitoring (OM&M) activities and documents the inspections that occurred over the last five years that are associated with the long-term care and oversight of the OU-1 remedy at the site.

The Report is based on the elements that were specified in the USEPA-approved Post Removal Site Control Plan (PRSCP; Ramboll Environ, 2017), and is consistent with Section 300.415(1) of the National Contingency Plan (NCP) and Office of Solid Waste and Emergency Response (OSWER) Directive 9360.2-02 that is required under AWI's Administrative Order on Consent (AOC), Docket No. CERCLA -01-2014-3758, dated July 7, 2014. As such, this PCFYR presents the monitoring activities that occurred over the past five years, and discusses the remedy inspections and groundwater monitoring activities that occurred during the specified five year period. We note that, while this report was referred to as a "Five Year Review Report" in the PRSCP, the title has been changed per USEPA's request to avoid confusion with the formal USEPA Five Year Review Reports).

#### 1.1 Site Description and Location

AWI has operated an acoustic ceiling tile manufacturing facility at the property since 1948. The site is located in an industrialized area approximately 5 miles south-southwest of downtown Macon, Bibb County, Georgia. The geographic coordinates of the center of OU-1 are 32° 46′ 24.59″ North and 84° 39′ 5.76″ West. The AWI property is comprised of approximately 130 acres that are divided into northern and southern parcels. The northern parcel consists of the manufacturing area, the WWTP area (which includes the approximately 4-acre WWTP Landfill), and an approximately 4.5-acre closed landfill (the Woodyard Landfill). The WWTP Landfill (OU-1) is located at the southeast portion of the northern parcel. The southern parcel consists of wooded land and an approximately 5-acre landfill (the Remote Landfill), east of which is the Former Macon Naval Ordnance Landfill (FMNOL) that historically received waste from the Former Macon Naval Ordnance Plant (FMNOP). A site location map and site layout map are provided as Figures 1 and 2 in **Appendix A.1**.

#### 1.2 Remedy Components Subject to the PRSCP

The OU-1 remedy components consisted of multiple engineered systems designed to mitigate potential exposures to soil, sediment, groundwater, and surface water associated with OU-1. These engineered systems included a landfill cap with a barrier wall and a redesigned stormwater conveyance system immediately east of the OU-1 landfill. The engineered systems and their respective components are briefly described below and figures illustrating the details for each component are provided in **Appendix A.1**.

#### 1.2.1 Landfill Cap/Vegetative Cover

To prevent infiltration of precipitation into the landfill, a three-tiered cap consisting of a geosynthetic clay liner (GCL), geogrid drainage layer, and backfill/topsoil cover was installed on the landfill. Tier 1 consists of the GCL, which is a two-layer composite-laminated liner impregnated with bentonite granules that are placed between an impermeable nylon geomembrane and a geosynthetic fabric. Tier 2 consists of a geogrid drainage layer that was placed directly over the GCL across the surface of the landfill (but not along the eastern embankment). This layer facilitates lateral movement of stormwater that may infiltrate the overlying cover of fill material and topsoil towards the stormwater collection system. Finally, Tier 3 consists of a 2-foot layer of soil material (backfill and topsoil) that protects the geogrid drainage layer and allows for the growth of vegetation. An illustration of the cap components is provided as Figure 3 in **Appendix A.1**.

Anchor trenches are located along the perimeter of the cap at the surface of the landfill to lock the GCL beneath the clean backfill, as well as to collect and direct stormwater away from the surface of the cap. The anchor trenches along the top of the eastern embankment were installed to anchor the GCL on both the downslope of the eastern embankment and the surface of the landfill. The anchor trenches are approximately 4 feet wide and 3 feet deep. The backfill and topsoil above the trench is contoured to serve as a vegetated drainage swale to direct stormwater away from the GCL cap and towards the sedimentation pond on the northern end of the landfill. The final grade of the landfill cap is vegetated with a mix of pollinator type seed mix, mulch, and tackifiers to limit erosion. Figure 3 in **Appendix A.1** presents more detail of the anchor trenches and embankment.

#### 1.2.2 Box Culvert System

A subsurface dual concrete box culvert stormwater conveyance system was installed to replace the drainage swale that combined stormwater from the site with sedimentation pond over-flow and yard surface runoff. This conveyance system is located from the northeast portion of OU-1, where the facility's multiple stormwater outfalls discharged into the drainage swale, extends along the eastern base of the landfill, and terminates at the plunge pool located near the southeast property boundary (before exiting the property). The expansion of the forebay and dual box culvert installation were designed to collect and convey the inflow of a 100-year storm event. In addition, a downstream plunge pool was constructed as a velocity-reduction basin for stormwater and to replace the outfall area originally located at the southern property boundary. Details of the box culvert stormwater conveyance system are presented in Figure 4 of **Appendix A.1**.

Backfill is present on top of the box culverts and drop inlet connections for the three discharge outfalls (stormwater yard inlet, the aeration basin emergency drain, and the final clarifier emergency drain) are located such that flow would be piped directly into the box culvert stormwater conveyance system. The backfill is vegetated to limit erosion.

#### 1.2.3 Water Basins

Surface water basins installed as part of the stormwater conveyance system include a sedimentation pond, forebay, and a plunge pool are discussed below.

#### 1.2.3.1 Sedimentation Pond

A sedimentation pond is located at the furthest upgradient location of the landfill. The sedimentation pond was designed to allow collection and ultimate deposition of solids carried to the pond as a result of storm events. Silty runoff that that is collected in the pond is retained until a liquid set point is reached, at which time the stormwater discharged to the forebay. The components of the sedimentation pond consist of discharge piping, riser pipe, basin baffles, trash rack, rip rap filter, and skimmer. The location and various components of the sedimentation pond is provided in Figure 5 of **Appendix A.1**.

#### 1.2.3.2 Forebay

A forebay was constructed to combine, equalize, and settle the discharge flows before entering the box culvert system, as well as accept over-flows from the sedimentation pond. The forebay area is lined with a geosynthetic membrane installed along the base and sides to prevent water from infiltrating into the soil beneath the pond. Rip rap stone work covers the geosynthetic membrane to protect the basin walls from erosion and surge flows from storm events. Components of the forebay can be seen on Figure 5 of **Appendix A.1**.

#### 1.2.3.3 Plunge Pool

The plunge pool, located at the southern end of the box culverts, was installed to dissipate the energy from stormwater flow and WWTP discharge following peak storms prior to the water flowing offsite. The plunge pool consists of a geotextile liner placed along the bottom and sides with a rip rap stone cover. The location and details of the plunge pool is shown on Figure 5 in **Appendix A.1**.

Post Closure Five Year Report; Armstrong World Industries Operable Unit-1 (WWTP Landfill) Macon, Georgia

#### 1.2.4 Barrier Wall

A mechanically-stabilized earthen (MSE) barrier wall with a GCL liner was installed along the 3:1 and 1:1 slopes on the eastern side of OU-1 to provide stability, eliminate landfill erosion, and serve as a barrier to prevent groundwater from migrating through the side of the landfill. The barrier wall was constructed to secure the GCL and provide stability to the embankment.

The barrier wall reaches an average height of approximately 15 feet from its base and is terraced in 18-inch lifts on a 1:1 slope. Each level is constructed of 10-foot sections of welded wire form baskets which are backfilled and wrapped with woven geotextile fabric. The final grade of the barrier wall is vegetated to limit erosion.

In order to allow precipitation that may enter the MSE wall (outside the GCL) to drain to the base of the wall and be diverted to the collection system, a stormwater collection system was installed along the interface of the landfill and the MSE wall. The collection system consists of 4-inch diameter solid PVC pipe exit drains. The drains are located approximately every 25 feet along the northern half of the base of the barrier wall. Exit drains do not exist along the southern half of the wall since flows are routed to an underlying base reinforcing pad (BRP) that also serves as a drainage feature. In addition, a 6-foot wide drainage swale is present along the entire length of the top of the MSE wall to provide a transition area from the 3:1 slope to the 1:1 slope. At the centerpoint of the wall, the swale slopes to the north towards the forebay and to the south towards the plunge pool. The surface of the drainage features are vegetated to limit erosion. Details of the barrier wall system are illustrated on Figure 6 of **Appendix A.1**.

The remainder of this PCFYR is organized as follows:

- Section 2: Periodic Inspections
- Section 3: Landfill Repair Work
- Section 4: Groundwater Monitoring
- Section 5: Conclusions and Path Forward
- Section 6: References

### 2. PERIODIC INSPECTIONS

The OM&M and inspection requirements for each of the remedy components are presented in detail in the March 2017 PRSCP. In general accordance with those requirements, AWI conducted periodic inspections of the OU-1 remedy to assess and document whether the components of the remedy were still in place and functioning as designed. Documentation of the inspections was captured using checklists that were included in the PRSCP, and are presented in **Appendix A.2**.

This PCFYR also includes the formal inspection of the remedy components by a professional engineer (PE) that is required every five years to document and certify that the overall remedy is effective as designed and in compliance with the Remedial Action Work Plan (RAWP). In addition, a groundwater monitoring and sampling program near the end of the five year period is specified in the PRSCP to assess the groundwater quality at the site.

#### 2.1 Inspection Requirements

The results and findings of the inspection and monitoring activities have been compiled in this PCFYR, as required under the 2014 AOC. The inspections performed over the past five years are briefly described below.

#### 2.1.1 Landfill Cap and Vegetative Cover

The landfill cap and vegetative cover inspections included visual observations to identify issues that may impact the integrity of the cap or its components. The soil cover on the landfill cap was inspected for erosion and thinning. The landfill cap was also visually inspected to ensure that the GCL is not exposed and that it remains secure in the anchor trenches. Runoff from storm events were observed when possible to note whether water is flowing as designed and not ponding on the surface. The inspection also noted if the vegetation needed to be maintained, and if any deep-rooted plants or trees were observed (and removed, as necessary).

#### 2.1.2 Box Culvert System

The box culvert system inspections included visual observations of the inlets and outlets of the culvert system in order to evaluate any evidence of damage, blockage, or any other developments that would restrict flow through the culvert system. When possible, inspections followed periods of high flow, extreme storm events, and/or whenever significant changes such as new development resulting in increased runoff.

#### 2.1.3 Water Basins (Sedimentation Basin, Forebay, and Plunge Pool)

The water basins were inspected to assess stormwater flow through the sedimentation basin, forebay, and plunge pool.

#### 2.1.4 Barrier Wall

The barrier wall was inspected for vegetative health and coverage, erosion issues within the wall, exposure of GCL, and proper functioning of the drainage features (both the swale on top of the wall and the drain lines placed along the base of the wall).

#### 2.1.5 Groundwater Monitoring

Groundwater samples were collected from four monitoring wells located in the vicinity of the site. Specifically, monitoring wells MW-04, MW-05, MW-05D, and MW-06R (the replacement for MW-06, as described in Section 4.1) were sampled in accordance with the standards and methodology outlined in the March 2017 PRSCP. More detail about the monitoring and sampling event are included in **Section 4**.

#### 2.2 Inspection Findings

Visual inspections were performed on all the OU-1 remedy components by AWI on the following dates:

- December 16, 2017
- June 22, 2018
- December 24, 2018
- March 19, 2019
- August 16, 2019
- June 5, 2020

The OU-1 remedy periodic inspections followed the protocols outlined in **Section 2.1** using the checklists provided in the original March 2017 PRSCP. Formal documentation of these inspections is contained in **Appendix A.2** for each of the dates noted above.

Throughout the six inspection periods, there were no significant problems in the various remedy components noted by the AWI personnel performing the work. Aside from some minor ponding that was observed in one of the landfill cap swales, minimal bare spots needing revegetation, or small mimosa trees beginning to take root at different locations on some of the components (cap, wall, slope), the remedy as a whole was intact, functioning properly and protective of infiltration reaching the landfill. These minor issues were corrected by AWI personnel throughout the year (i.e., weeding, seeding, removing debris, etc.). The water basins and stormwater conveyance systems were noted as functioning as designed during this time period.

On October 7, 2020, a formal visual inspection was performed by a PE as required per the 2017 PRSCP. The purpose of the inspection was to document the condition of the various components of the remedy. Similar to the yearly inspections performed by AWI, the checklists were used to evaluate the integrity of the GCL cap and cover, the barrier wall, the water basins, and the stormwater conveyance system. In additional, photographs of the inspection were taken to provide documentation of the remedy and relay the necessary maintenance and repair items needed. Copies of the inspection checklists and photologs are contained in **Appendix A.3**.

The results of the PE inspection showed that the overall remedy was in good condition and protective. The MSE wall structure remained competent with no erosional issues. Though some saplings needed to be removed before deeper roots could develop, AWI's regular OM&M program appeared to be effectively managing the removal of unwanted vegetation. The water basins also appeared to be in good shape. Some debris was noted in the forebay that could potentially lead to obstruction and potential clogging of the box culvert drainage system. However, AWI's ongoing OM&M program includes periodic removal of obstructions in the basins. The landfill cap and cover appeared to be in very good shape especially considering that the construction was completed five years earlier. There was an excellent stand of vegetation that had taken root and proliferated throughout the cap. The pollinator species of grasses, weeds, and wildflowers had germinated throughout the cap and were self-propagating with no bare spots evident. Though much of the vegetation was in its dormant state due to the fall season and cold weather, it appeared that the landfill cap was densely covered and proliferating. The anchor trenches on the horizontal landfill surface were in good shape; well defined and conveying water. No ponding of stormwater was evident during the inspection.

However, some erosion was identified along the southern slope of the landfill, in the drainage swales conveying water off the slope. Due to significant drainage along these channels throughout the years, the top swale directing water to the west was seen to have sloughing of topsoil that exposed the fill material beneath the topsoil. It was noted that the geomembrane liner had not been exposed, but that it could occur in the future if not remedied. Similarly, the lower swale conveying runoff back to the east toward the plunge pool had filled in from the eroded cover material further

Post Closure Five Year Report; Armstrong World Industries Operable Unit-1 (WWTP Landfill) Macon, Georgia

up-slope, thus impeding effective drainage. Consequently, recommendations were made to repair the drainage swales along this side of the landfill; and these recommendations were implemented. Photographs of the affected southern swales are included in the photolog of **Appendix A.3**. A discussion of the recommendations and documentation of the repair of these swales are presented in **Section 3**.

### 3. LANDFILL REPAIR WORK

During the October 7, 2020, inspection of the OU-1 remedy by the PE, some erosion was identified along the southern slope of the landfill cover, likely due to significant/much greater than expected rainfall events over the previous five years. The discussion below provides more detail about the findings and subsequent landfill repair activities.

#### 3.1 Landfill Inspection Findings

Following the initial discovery of erosion along the southern slope, Ramboll conducted a subsequent site visit on October 23, 2020, to further inspect the drainage swale and specify the scope of repair work needed. Although some cover material (topsoil and fill material) had eroded from the swale, the underlying GCL membrane liner was not exposed. Therefore, in order to prevent further erosional sloughing from occurring and prevent the exposure of the membrane liner, Ramboll recommended repairing the damaged swales by armouring them with rip rap stone to allow the landfill to properly shed water on the southern side of the landfill while simultaneously protecting the cover material from eroding away from and off the slope.

#### 3.2 Landfill Repair Work

Landfill repair work began during the week of December 7, 2020. KAM, Inc. (KAM), was contracted to perform the work, which was overseen by a Ramboll Professional Geologist (PG). As identified previously, the upper swale was designed to divert water from the top ridge of the landfill horizontal cover, down the southern slope and toward the west for approximately 400 feet. At that point, the upper swale connects to the lower swale, reverses direction and carries stormwater back to the east, where it ultimately discharges water to the rip rap channel leading to the plunge pool at the southeastern portion of the landfill.

Prior to starting the repair work, AWI facility personnel cleared the south side of the landfill of all weed and vegetative growth using an industrial mower and exposed the surface swales on the side slope. Using a mini excavator, KAM defined, cleaned out, and reshaped approximately 970 feet of 2 feet wide x 1-foot deep drainage swales on the south slope in both directions (west and east). After reshaping, KAM placed approximately 1,450 square yards of geotextile fabric (filter) to allow water to drain into the subsurface drainage layer beneath the surface trenches while minimizing the potential for sediment to enter the subsurface anchor trench. KAM then placed approximately 100 tons of rip rap in the trenches on top of the filter fabric to armor the swales and keep the surface drainage pathways open. Following the placement of rip rap, KAM reused topsoil (removed from the lower swale) to repair sloughing and disturbed areas. Straw matting was laid down and secured with staples over disturbed areas where the vegetative cover was stripped. Revegetation was not performed due to the seasonal time of year and the fact that the germination of the existing pollinator species will occur in the spring to start another growth of vegetation along the southern slope. A photolog of the repair work is included as **Appendix B**.

### 4. GROUNDWATER MONITORING

As described in the 2017 PRSCP, and identified in the 2014 RAWP, groundwater monitoring was conducted near the end of this first five year period to evaluate if impacts to the aquifer had occurred since the previous sampling event and subsequent to completion of the remedy. In preparation for this sampling event, Ramboll visited the site on October 6, 2020, to evaluate the condition of the groundwater wells. At that time, monitoring well MW-06 was observed to be damaged – it was filled in with soil and the upper PVC casing was missing. Consequently, MW-06 was properly abandoned on November 16, 2020, and a replacement well was installed (MW-06R) (these activities are presented in more detail in Sections 4.1.1 and 4.1.2). Groundwater samples were collected from wells MW-04, MW-05, and MW-05D on October 7, 2020, and a groundwater sample was collected from replacement well MW-06R on November 17, 2020. The groundwater sampling methodology and analytical results are presented in **Sections 4.2** and **4.3**, respectively.

#### 4.1 Monitoring Well Replacement

#### 4.1.1 Well Abandonment

Based upon the observed condition monitoring well MW-06, it was properly abandoned by over-drilling the well and filling the resulting borehole with cement/bentonite grout as described in the Region 4 EPA SESD Guidance Document - Design and Installation of Monitoring Wells (EPA, SESDGUID-101-R1, 2013). Prior to over-drilling, the existing steel flush mount cover was removed. Over-drilling was performed using 4.25-inch inside diameter (ID) hollow stem augers which were advanced over the well to the depth the well had originally been installed, which was 40 feet below ground surface (bgs). After the augers reached the final depth, a cement/bentonite grout was "tremied" to the bottom of the augers, filling the borehole from the bottom up. Displaced soil removed from the borehole was properly disposed of along with the other investigative derived waste (IDW) associated with installing, developing, and sampling the replacement well.

#### 4.1.2 Well Installation

Replacement monitoring well MW-06R was installed 7 feet north of the former MW-06 location. Prior to installing MW-06R, Ramboll contacted the Underground Facility Protection Organization system to identify public underground utilities at the site and coordinated the completion of a private utility mark-out to identify potential utilities or subsurface structures near the drilling location.

The replacement well was installed in the same manner as MW-06, and in accordance with SESD Guidance Document - Design and Installation of Monitoring Wells (EPA, SESDGUID-101-R1, 2013). Specifically, the 2-inch diameter well was installed using 4.25-inch ID hollow stem augers advanced to a depth of 40 feet bgs , and screened from 30 to 40 feet (the same interval as MW-06). Prior to drilling, continuous soil sampling was conducted using direct-push technology (DPT) and a dual tube soil collection system. The soil cores were logged for material composition and were screened using a photoionization detector (PID) for health and safety purposes and to evaluate the possible presence of VOCs in the soil. The soil was also inspected for obvious signs of contaminant impact (i.e., visual staining and/or odor); none were observed.

The well was constructed with 10 feet of 0.006-inch slot, Schedule 40 PVC screen, and 30 feet of Schedule 40 PVC riser. A sand filter pack was installed between the well screen and the borehole wall, above which a hydrated bentonite seal was installed. The well was completed with a flush mount steel cover installed in a 2-foot square concrete pad. Steel bollards were installed on two sides of the concrete pad for protection. Following installation, the well was developed with an inertia-style pump and the well screen was surged until the purge water was relatively free of sediment. The well construction log is provided as **Appendix C.1**.

The drilling and sampling equipment were decontaminated before and after the well installation. The decontamination was performed in accordance with SESD Operating Procedure: Field Equipment Cleaning and Decontamination, Number SESDPROC-205-R3 (USEPA 2013). Soil cuttings generated from the well abandonment and well installation, as well as purge water generated during well development and sampling, were placed in Department of Transportation (DOT) approved 55-gallon drums. A composite soil sample was collected for disposal characterization and waste profiling. The IDW was transported offsite on December 10, 2020, by KAM, Inc., and disposed of at Clean Earth in Glencoe, Alabama.

#### 4.2 Groundwater Sampling Methodology

Ramboll performed the groundwater sampling event by collecting samples from four groundwater monitoring wells at the AWI site (MW-04, MW-05, MW-05D, and MW-06R) following the methodologies specified in the PRSCP. Prior to purging and sampling the wells, an electronic water level meter was used to measure the depth to groundwater in each well (the depth to groundwater measurements are shown on the sampling logs presented in **Appendix C.2**). That data showed that the groundwater flow direction is to the southeast, which is consistent with the historic observed flow direction. A potentiometric surface map that shows the groundwater elevations and flow direction is presented as **Figure 1**.

The wells were purged and sampled in accordance with low-flow sampling protocols using a peristaltic pump attached to disposable tubing. The wells were considered to have been adequately purged when the temperature, pH, and specific conductance of the groundwater stabilized to  $\pm 10$  percent over three successive readings. In addition, turbidity was monitored and recorded during the low-flow purge. Because turbidity levels would not stabilize while purging MW-05 to values less than 10 NTUs, filtering was deemed necessary, and the groundwater was filtered through a 0.45-micron filter. Additionally, a separate "unfiltered" sample was also collected from MW-05 for comparison purposes. The purge logs for the October and November 2020 sampling event are included as **Appendix C.2**.

The collected samples were placed in clean, appropriately-preserved, laboratory-supplied containers. After the samples were placed into the containers, they were sealed, labelled, and placed on ice pending delivery under standard chain-of-custody procedures to Pace Analytical Services, LLC, a National Environmental Laboratory Accreditation Certification (NELAC) Program approved laboratory for analysis. As specified in the PRSCP, the samples were analyzed for the following parameters:

- VOCs using USEPA Method SW-846 Method 8260;
- SVOCs using USEPA Method SW-846 Method 8270;
- Priority Pollutant and Resource Conservation and Recovery Act metals by USEPA Method 7471A and 6010B; and,
- PCBs using USEPA Method 8082A.

#### 4.3 Groundwater Analytical Results

The analytical data from the groundwater sampling event conducted in 2020 are discussed below and summarized in **Table 1**. The detected groundwater constituents are presented in **Figure 2**, and the complete laboratory analytical reports are included as **Appendix C.3**.

In summary, very few constituents were detected in the groundwater and, for the ones that were detected, neither their presence nor their concentrations are considered notable. Specifically:

- SVOCs were not detected in the groundwater; this is consistent with historic groundwater data;
- PCBs were not detected in the groundwater; this is consistent with historic groundwater data;
- Two VOCs were detected, as follows:

- Methyl-tert-butyl ether (MTBE) was detected in MW-05 at a concentration of 2.1 μg/L, which is less than the regional screening level (RSL) of 14 μg/L for tap water. In the previous groundwater sampling event (May 2011), MTBE was detected in wells MW-04 and MW-06 at concentrations of 0.33 and 0.4 μg/L, respectively. MTBE is a common gasoline additive and is not known to be related to the site.
- o Chloromethane was detected in MW-06R at a concentration of 1.6  $\mu$ g/L, which is less than the RSL of 190  $\mu$ g/L for tap water. In the previous groundwater sampling event (May 2011), chloromethane was not detected. Chloromethane is often present as a breakdown product of chlorine when added to potable water and is not known to be related to the site.
- Two inorganic compounds were detected, as follows:
  - O Barium was detected in three of the four monitoring wells that were sampled (MW-04, MW-05 and MW-06R) at concentrations ranging from 60.7 μg/L to 86.8 μg/L. None of the barium detections exceeded the RSL of 3,800 μg/L for tap water nor the federal maximum contaminant level (MCL) of 2,000 μg/L. In the previous groundwater sampling event (May 2011), barium was detected in the same wells at concentrations ranging from 56.0 μg/L to 77.8 μg/L. Barium is a naturally occurring component of soil and therefore is often present in groundwater at low concentrations and is not known to be related to the site.
  - ο Mercury was detected in MW-04at a concentration of 0.32 μg/L, which is less than the RSL of 0.63 μg/L for tap water and the federal MCL of 2 μg/L. In the previous groundwater sampling event (May 2011), mercury was not detected. Mercury is a naturally occurring component of soil and therefore is often present in groundwater at low concentrations, and is not known to be related to the site.

### 5. CONCLUSIONS AND PATH FORWARD

Based on the results of the five year inspection, Ramboll concludes the following:

- The remedy components, including the landfill cap, water basins, barrier wall, stormwater conveyance system, and anchor trenches are all in good condition, and continue to be effective at meeting the four Remedial Action Objectives (RAOs) outlined in the Engineering Evaluation/Cost Analysis (EE/CA) formally approved by USEPA in the Action Memorandum dated July 25, 2013. These RAOs are identified as:
  - Limit the potential for PCBs in surface soil to migrate outside of OU-1;
  - Limit the potential for vertical and lateral migration of PCBs within the landfill and potential migration from the landfill;
  - Limit surface water seepage from the landfill; and,
  - o Contain contaminated sediment in the drainage swale.
- Following the repair of the southern slope drainage channels, stormwater runoff from the landfill should occur easily and without erosion along the southern slope; and,
- The groundwater flow direction and analytical results are similar to those observed historically in the past, and demonstrate that the groundwater in proximity to the landfill is not impacted.

The OU-1 WWTP Landfill continues to be well protected by the remedy components installed per the design requirements outlined in the RAWP to achieve the objectives identified in the Action Memorandum. The cap, wall, and stormwater conveyance system have worked together to prevent the infiltration of water into the landfill, and to facilitate the removal of water/precipitation from the landfill's capped surface. With the recent repair of the southern slope swales, the remedy is expected to provide this protection into the foreseeable future.

Although the 2017 PRSCP itself covered only five (5) years of monitoring, Ramboll recommends that AWI continue to monitor the system on a semi-annual basis and keep formal records to document the continued integrity of the remedy and its components (using, for example, the checklists from the 2017 PRSCP) until a Record of Decision ("ROD") is issued for the entire Armstrong World Industries Superfund site.

### 6. REFERENCES

- ENVIRON, 2013. Removal Action Final Report for the WWTP Landfill, Operable Unit-1; Armstrong World Industries, Inc., 4520 Broadway Macon, Georgia. October.
- Ramboll Environ, 2014. Remedial Action Work Plan, WWTP Landfill, Operable Unit-1; Armstrong World Industries, Inc., 4520 Broadway Macon, Georgia. October.
- Ramboll Environ, 2016. Engineering Evaluation / Cost Analysis, Revision 1, WWTP Landfill, Operable Unit-1; Armstrong World Industries, Inc., 4520 Broadway Macon, Georgia. February.
- Ramboll Environ, 2017. Post Removal Site Control Plan; Armstrong World Industries, Inc., 4520 Broadway Macon, Georgia. March.
- Region 4 EPA SESD Guidance Document Operating Procedure for Design and Installation of Monitoring Wells (EPA, SESDGUID-205-RI, 2013).
- USEPA, 1988. Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA: Interim Final (EPA/540/G-89/004). Office of Solid Waste and Emergency Response (OSWER). Washington DC.
- USEPA, 1993. Guidance on Conducting Non-Time Critical Removal Actions Under CERCLA (EPA540-R-93-057). Office of Solid Waste and Emergency Response (OSWER) Washington DC.

Post Closure Five Year Report; Armstrong World Industries Operable Unit -1 (WWTP Landfill) Macon, Georgia

### **TABLE**

## Table 1 - Summary of Groundwater Analytical Results Operable Unit 1

#### Armstrong World Industries (EPA ID#: GAN000410033)

Sample ID Sample Date	Tap Water RSL <sup>1</sup>	Federal MCL <sup>2</sup>	MW-04 10/7/2020	MW-04 Field Duplicate 10/7/2020	MW-05 10/7/2020	MW-05 Field Filtered 10/7/2020	MW-05D 10/7/2020	MW-06R 11/19/2020
VOCs by USEPA Method 8260D								
Methyl-tert-butyl ether	14		<1.0	<1.0	2.1	NA	<1.0	<1.0
Chloromethane	190		<1.0	<1.0	<1.0	NA	<1.0	1.6
Metals by USEPA Method 6010D								
Barium	3,800	2,000	68.7	70.5	86.8	87.4	<10.0	60.7
Mercury by USEPA Method 7470A								
Mercury	0.63	2	0.32	0.31	< 0.20	< 0.20	< 0.20	< 0.20

#### Notes:

All concentrations are presented in ug/L (parts per billion)

Only compounds with at least one detection are shown

NA - Not analyzed

- (1) USEPA Tap Water Regional Screening Levels with a target cancer risk of 1E-06 and a target hazard quotient of 1.0 ((https://semspub.epa.gov/work/HQ/400431.pdf; November 2020)
- (2) USEPA Maximum Contaminant Levels (https://www.epa.gov/sites/production/files/2016-06/documents/npwdr\_complete\_table.pdf; May 2009)
- < Analyte was not detected at the laboratory reporting limit indicated

  Due to high turbidity, a field filtered sample (0.45 micron) was collected from MW-05 and analyzed for metals and PCBs

  For QA/QC purposes, a field duplicate sample was collected from MW-04



Post Closure Five Year Report; Armstrong World Industries Operable Unit -1 (WWTP Landfill) Macon, Georgia

### **FIGURES**



RAMBOLL

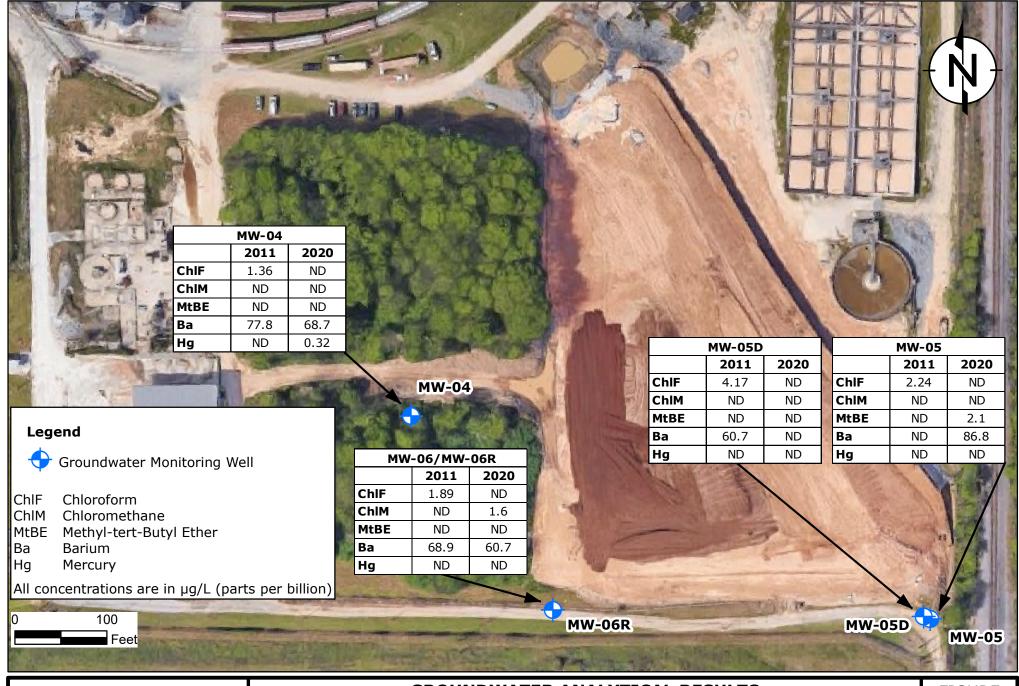
DRAFTED BY: BB DATE: 1/28/2021

### **POTENTIOMETRIC SURFACE MAP**

NOVEMBER 19, 2020 ARMSTRONG WORLD INDUSTRIES MACON, BIBB COUNTY, GEORGIA **FIGURE** 

1

1690018899



RAMBOLL

DRAFTED BY: BB DATE: 1/28/2021

#### **GROUNDWATER ANALYTICAL RESULTS**

OCTOBER/NOVEMBER 2020 ARMSTRONG WORLD INDUSTRIES MACON, BIBB COUNTY, GEORGIA FIGURE

2

1690018899

Post Closure Five Year Report; Armstrong World Industries Operable Unit -1 (WWTP Landfill) Macon, Georgia

### **APPENDIX A**

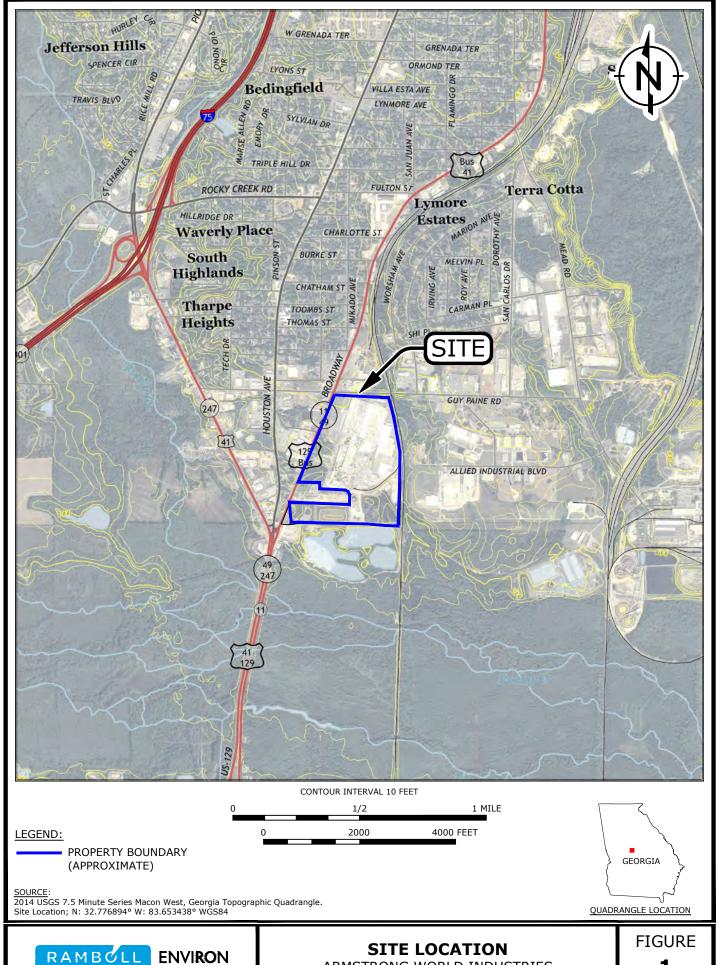
#### **INSPECTION DOCUMENTATION**

- PRSCP FIGURES
- INSPECTION CHECKLISTS
- PE INSPECTION CHECKLIST AND PHOTOLOG

Post Closure Five Year Report; Armstrong World Industries Operable Unit -1 (WWTP Landfill) Macon, Georgia

### **APPENDIX A.1**

**PRSCP FIGURES** 



DRAFTED BY: CKL

DATE: 8/16/16

ARMSTRONG WORLD INDUSTRIES MACON, GEORGIA

1

0738621A



LEGEND

AWI PROPERTY BOUNDARIES



AIP AND FMNOL BOUNDARIES



CREEK



DRAINAGE DITCH



DRAINAGE EASEMENT
REMOTE LANDFILL



→ FMNOL



OPERABLE UNIT 1 (OU-1)

#### Notes

FMNOL - Former Macon Naval Ordinance Landfill

#### Source:

Aerial Photograph: Digital Globe/Globe Explorer, 2004

Property boundaries obtained from Bibb County Board of Tax Assessors

Original Drawing: TetraTech, Figure 2 Surrounding Properties, dated 09/08/09.

SCALE IN FEET



### SITE LAYOUT

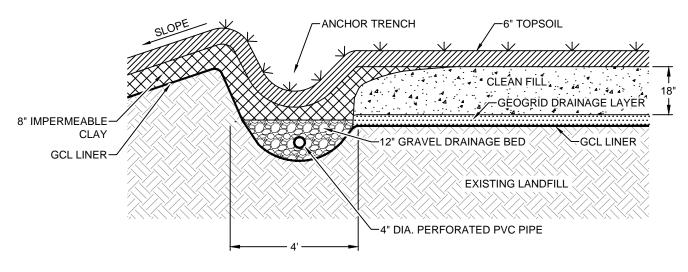
ARMSTRONG WORLD INDUSTRIES MACON, GEORGIA

**FIGURE** 

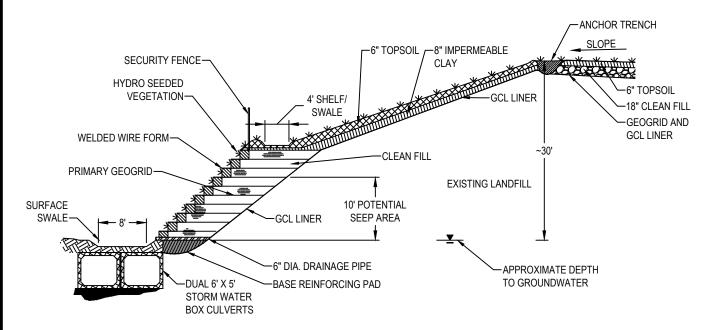
2

0738621A

DRAFTED BY: CKL DATE: 3/15/2021



### LANDFILL SURFACE



**EASTERN EMBANKMENT** 



DATE: 9/26/16

DRAFTED BY: CKL

L:\Loop Project Files\00\_CAD FILES\07\DB&R\_AWI OU-1 Remedy Construction 0738621A\2016-08\03\_Details of the OUT-1 Cap.dwg

DETAILS OF THE OU-1 CAP ARMSTRONG WORLD INDUSTRIES MACON, GEORGIA FIGURE **3** 

0738621A

COVER VARIES, 6" MIN, SEE PROFILE

#### NOTES:

::\Loop Project Files\00\_CAD FILES\07\DB&R\_AWI OU-1 Remedy Construction 0738621A\2016-08\04\_Storm Water Box Culvert Details.dwg

SEE SHEET C-2 FOR SECTION PLANIMETRIC LOCATIONS.

CULVERT AGGREGATE BASE SHALL BE TYPE II FOUNDATION BACKFILL PER GDOT SPECIFICATION 812. AGGREGATE PER GDOT SPECIFICATION 800 AND STANDARD OPERATING PROCEDURE 1.

CONTRACTOR SHALL FIELD VERIFY STABILITY OF MATERIAL BELOW SUBGRADE, AND INFORM ENGINEER OF UNSUITABLE BEDDING MATERIAL. ADDITIONAL EXCAVATION MAY BE NECESSARY.

CLASS 1 FILTRATION (PERMEABLE) GEOTEXTILE FABRIC SHALL BE PROVIDED BELOW CULVERT AGGREGATE BASÉ, TO PREVENT SUBGRADE MIGRATION INTO BASE.

CLASS 1 STABILIZATION (IMPERMEABLE) GEOTEXTILE FABRIC SHALL BE PROVIDED ABOVE CULVERT AFTER PLACEMENT, TO PREVENT BACKFILL FROM ENTERING CULVERT SEAMS IN CASE OF MINOR SETTLING.

ALL MATERIAL EXCAVATED FROM THE EXISTING DRAINAGE CONVEYANCE SHALL BE SPOILED IN THE ON-SITE LANDFILL UNDER THE PROPOSED GCL CAP.

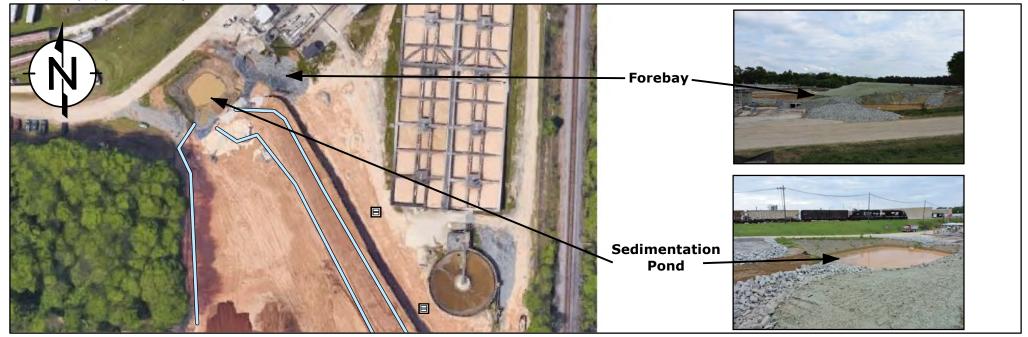


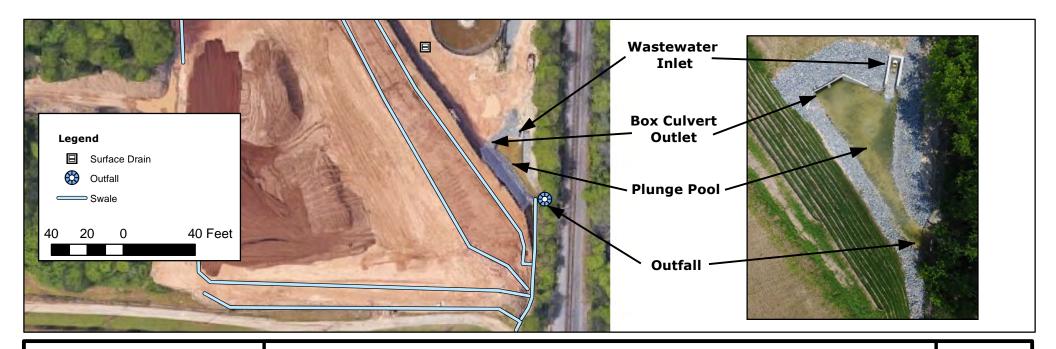
RAMBOLL **ENVIRON**  STORM WATER BOX CULVERT DETAILS

ARMSTRONG WORLD INDUSTRIES MACON, GEORGIA

**FIGURE** 4

0738621A





RAMBOLL ENVIRON

DRAFTED BY: AK

DATE: 2/23/2017

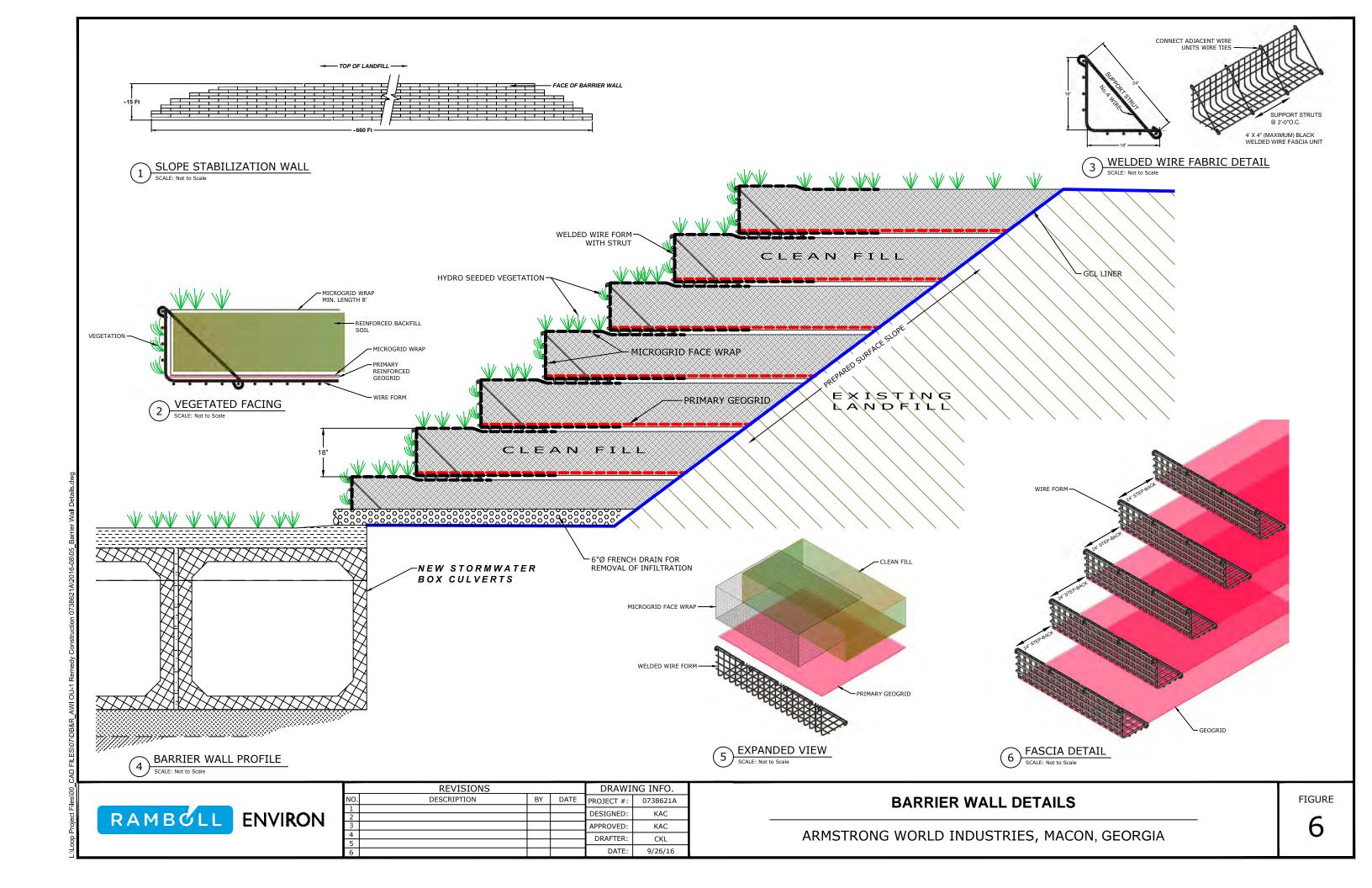
WATER BASINS
ARMSTRONG WORLD INDUSTRIES

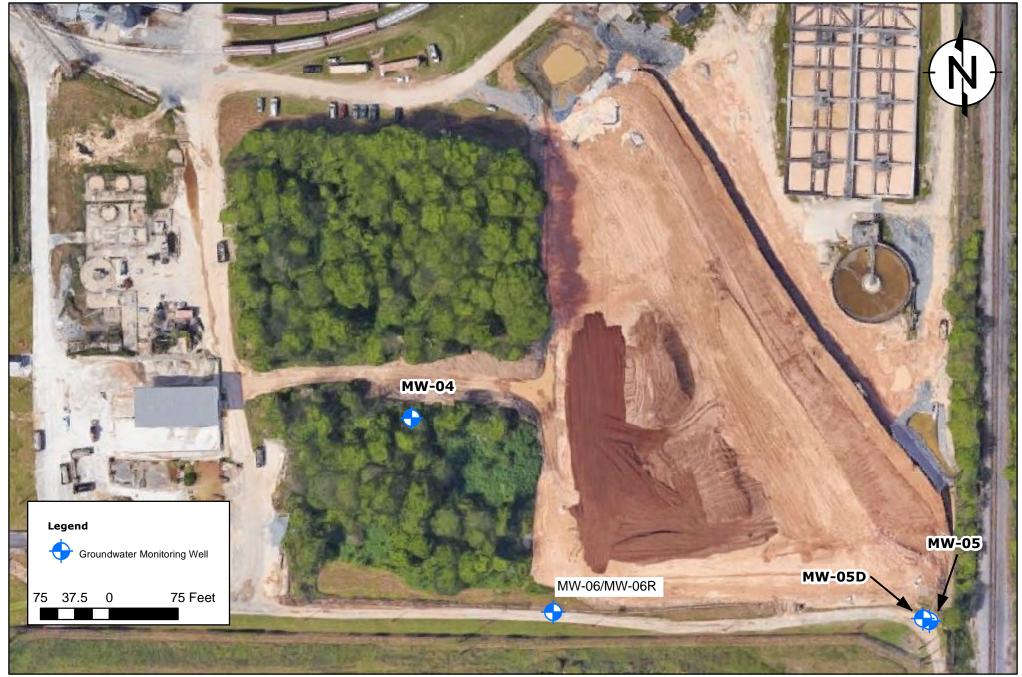
ARMSTRONG WORLD INDUSTRIES MACON, BIBB COUNTY, GEORGIA

FIGURE

5

07-38621B





RAMBOLL ENVIRON

DATE: 2/23/2017

### **GROUNDWATER MONITORING WELLS**

ARMSTRONG WORLD INDUSTRIES MACON, BIBB COUNTY, GEORGIA

FIGURE

7

07-38621B

Post Closure Five Year Report; Armstrong World Industries Operable Unit -1 (WWTP Landfill) Macon, Georgia

### **APPENDIX A.2**

#### **INSPECTION CHECKLISTS**

- DECEMBER 16, 2017JUNE 22, 2018
- O DECEMBER 24, 2018
- o MARCH 19, 2019
- o AUGUST 16, 2019
- O JUNE 5, 2020

# Form A1 GCL Cap Checklist

#### **Inspection Schedule**

Year 1 through Year 2 – Quarterly Inspections Year 3 through Year 5 – Semi-annual Inspections

Inspected by Keith Yo	umans	Inspection Date <u>12-16-17</u>	
General		Observation Notes	Repair Notes
1. Are there signs of subsidence (visible low spots where water is ponding)?	Yes ✓No		
Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Mo No No		
3. Are there cracks in the soil due to dry conditions?	Yes √No		
Vegetative Cover			
1. Are there bare spots in the cover?	Yes No		
2. Is there any dead vegetation?	Yes No		
3. Are there any trees (deep-rooted vegetation)?	Yes No		
4. Is there evidence of burrowing animals?	Yes No		
5. Is the cover maintained or mowed?	Yes No		

### Form A1

### **GCL Cap Checklist**

Drainage Swales		Observation Notes	Repair Notes	
1. Is there standing water?	Yes No	Center East side of Swale water runoff with some signs of ponding during heavy rain events.		
2. Is there any debris present?	Yes No			
GCL Exposed				
Is GCL exposed anywhere on the cover?	Yes No			
2. If yes, is the exposed GCL damaged?	Yes No			
Manhole	<u> </u>			
1. Is the manhole clear of debris?	✓ Yes No			
Drainage Pipe on Southeastern Corner				
1. Is the pipe clear of debris?	✓ Yes No			
2. Is the pipe intact (no evidence of crushing or detachment)?	✓ Yes No			

### Form A2

### **Box Culvert System Checklist**

#### Inspection Schedule

Year 1 through Year 5 – Semi-Annual Inspections

Inspected by <u>Keith You</u>	ımans	Inspection Date <u>12-16-17</u>		
Top Fill		Observation Notes	Repair Notes	
Are there signs of subsidence (visible low spots where water is ponding)?	∏Yes √No			
2. Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	∏Yes ✓No			
3. Are there cracks in the soil due to dry conditions?	Yes ✓No			
Vegetative Cover			-	
1. Are there bare spots in the cover?	□Yes ☑No			
2. Is there any dead vegetation?	□Yes ✓No			
3. Are there any trees (deep-rooted vegetation)?	□Yes ✓No			
4. Is there evidence of burrowing animals?	□Yes ☑No			

### Form A2

### **Box Culvert System Checklist**

Clarifier Line Connection - Final Clarifier		Observation Notes	Repair Notes
1. Is there evidence of leaking?	□Yes ☑No		
2. Is there evidence of damage?	☐Yes ☑No		
3. Is there any debris blocking the grate?	☐Yes ☑No		
Clarifier Line Connection - Aeration Basin Emerg 1. Is there evidence of leaking?	ency Discharge		
2. Is there evidence of damage?	☐Yes ☑No		
3. Is there any debris blocking the grate?	Yes ✓No		

### Form A2

### **Box Culvert System Checklist**

Clarifier Line Connection - Surface Water Drain at Southwest Corner of Aeration Basin						
1. Is there evidence of leaking?	□Yes ☑No					
2. Is there evidence of damage?	□Yes ✓No					
3. Is there any debris blocking the grate?	∏Yes <b>Z</b> No					
Inlet at Forebay		Observation Notes	Repair Notes			
1. Is debris present?	Tes √No					
2. Is the water free flowing?	<b>√</b> Yes <b>N</b> o					
Outlet at Plunge Pool						
1. Is debris present?	Yes <b>√</b> No					
2. Is the water free flowing?	√Yes □No					

# Form A3 Water Basins Checklist

#### Inspection Schedule

Year 1 through Year 5 – Semi-Annual Inspections

Inspected by Keith Youmans	Inspection Date 12-16-17

Sedimentation Basin		Observation Notes	Repair Notes
Are there cracks in the soil due to dry conditions?	Yes No		
2. Is the outlet clear of debris?	☐Yes ✓No		
3. Is the rip rap along drainage runs intact?	☐Yes ☑No		
4. Are there signs of erosion along sides?	☐Yes ☑No		
Forebay  1. Is the liner intact?	☐Yes ☑No		
2. Is the forebay clear of debris?	Yes ☑No		
3. Are the discharge pipes clear of debris?	☐Yes ☑No		
4. Is the rip rap intact?	☐Yes ☑No		

## Form A3

#### **Water Basins Checklist**

Plunge Pool/Outfall		Observation Notes	Repair Notes
1. Is the liner intact?	Yes No		
2. Is the plunge pool clear of debris?	Yes No		
3. Is the outfall clear of debris?	Yes No		
4. Is the rip rap intact?	Yes No		
5. Is water free flowing through the outfall?	Yes No		

## Form A4

#### **Barrier Wall Checklist**

#### **Inspection Schedule**

Inspected by Keith Youmans	Inspection Date 12-16-17
• • • • • • • • • • • • • • • • • • • •	

3:1 Slope - General		Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?	Yes VNo		
2. Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes No		
3. Are there cracks in the soil due to dry conditions?	Yes No		
5. Is the GCL exposed?  If so, is the GCL damaged?	Yes ✓ No Yes ✓ No		
3:1 Slope - Vegetative Cover			
1. Are there bare spots in the cover?	Yes <b>V</b> No		
2. Is there any dead vegetation?	Yes No		
	Yes No		
4. Is there evidence of burrowing animals?	Yes 🗸 No		

## Form A4

1:1 Slope - General		Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?	Yes <b>√</b> No	Center East side of Swale water runoff with some signs of ponding during heavy rain events.	
2. Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes No		
3. Is the GCL exposed?  If so, is the GCL damaged?	☐ Yes ✓ No ✓ Yes ☐ No		
1:1 Slope - Vegetative Cover	I.		1
1. Are there bare spots in the cover?	<b>√</b> Yes No		
2. Is there any dead vegetation?	<b>√</b> Yes No		
3. Are there any trees (deep-rooted vegetation)?	Yes No		
4. Is there evidence of burrowing animals?	Yes No		
1:1 Slope - Baskets			
Have the baskets collapsed or moved out of place?	Yes No		
2. Are there signs of erosion within the baskets?	Yes No		
3. Are there signs of slippage?	Yes No		

## Form A4

Top of Wall - General		Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?	Yes ✓ No		
Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes <b>√</b> No		
3. Are there cracks in the soil due to dry conditions?	Yes No		
Top of Wall - Vegetative Cover			
1. Are there bare spots in the cover?	Yes VNo		
2. Is there any dead vegetation?	Yes 🗸 No		
3. Are there any trees (deep-rooted vegetation)?	Yes No		
4. Is there evidence of burrowing animals?	Yes <b>√</b> No		
Top of Mall. During an Country			
Top of Wall - Drainage Swale		T	T
1. Is there standing water?	Yes <b>√</b> No		
2. Is there any debris present?	Yes <b>√</b> No		

# Form A1 GCL Cap Checklist

#### **Inspection Schedule**

Year 1 through Year 2 – Quarterly Inspections Year 3 through Year 5 – Semi-annual Inspections

Inspected by Michael	Poythress	Inspection Date <u>6-22-18</u>	
General	O	bservation Notes	Repair Notes
1. Are there signs of subsidence (visible low spots where water is ponding)?	Yes √No		
2. Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes ✓ No		
3. Are there cracks in the soil due to dry conditions?	Yes No		
Vegetative Cover			
1. Are there bare spots in the cover?	Yes No		
2. Is there any dead vegetation?	Yes ✓ No		
3. Are there any trees (deep-rooted vegetation)?	Yes ✓ No		
4. Is there evidence of burrowing animals?	Yes ✓ No		
5. Is the cover maintained or mowed?	✓ Yes No		

## Form A1

## **GCL Cap Checklist**

Swales	Observation Notes	Repair Notes
standing water?		
any debris present?	0	
ised		
xposed anywhere on the cover?	0	
the exposed GCL damaged?	0	
anhole clear of debris?	0	
Pipe on Southeastern Corner		
pe clear of debris?		
pe intact (no evidence of crushing or nt)?	0	
the exposed GCL damaged?  anhole clear of debris?  Pipe on Southeastern Corner  pe clear of debris?	0	

## Form A2

### **Box Culvert System Checklist**

#### **Inspection Schedule**

Inspected by Michael Poythress Inspection Date 6-22-18			
Top Fill		Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?	∏Yes ✓No		
Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes \( \overline{I}\)No		
3. Are there cracks in the soil due to dry conditions?	∏Yes ✓No		
Vegetative Cover			
1. Are there bare spots in the cover?	□Yes ☑No		
2. Is there any dead vegetation?	□Yes <b>✓</b> No		
3. Are there any trees (deep-rooted vegetation)?	∏Yes <b>√</b> No		
4. Is there evidence of burrowing animals?	∏Yes <b>√</b> No		

## Form A2

## **Box Culvert System Checklist**

Clarifier Line Connection - Final Clarifier		Observation Notes	Repair Notes
1. Is there evidence of leaking?	□Yes ☑No		
2. Is there evidence of damage?	☐Yes ☑No		
3. Is there any debris blocking the grate?	□Yes ☑No		
Clarifier Line Connection - Aeration Basin Emerge	ency Discharge		
1. Is there evidence of leaking?	□Yes ✓No		
2. Is there evidence of damage?	□Yes ✓No		
3. Is there any debris blocking the grate?	_Yes √No		

## Form A2

## **Box Culvert System Checklist**

Clarifier Line Connection - Surface Water Drain a	t Southwest Co	orner of Aeration Basin	
1. Is there evidence of leaking?	□Yes ☑No		
2. Is there evidence of damage?	□Yes ☑No		
3. Is there any debris blocking the grate?	□Yes ☑No		
Inlet at Forebay		Observation Notes	Repair Notes
1. Is debris present?	Yes		
2. Is the water free flowing?	∏Yes <b>√</b> No		
Outlet at Plunge Pool			,
1. Is debris present?	□Yes ☑No		
2. Is the water free flowing?	∏Yes <b>Z</b> No		

# Form A3 Water Basins Checklist

#### Inspection Schedule

	Michael Do	thross		6 22 40
Inspected by	Michael Poy	/tiress	Inspection Date	0-22-18

Sedimentation Basin		Observation Notes	Repair Notes
Are there cracks in the soil due to dry conditions?	☐ Yes ✓ No		
2. Is the outlet clear of debris?	☐Yes ☑No		
3. Is the rip rap along drainage runs intact?	☐Yes ☑No		
4. Are there signs of erosion along sides?	☐Yes ☑No		
Forebay			
1. Is the liner intact?	Yes No		
2. Is the forebay clear of debris?	Yes No		
3. Are the discharge pipes clear of debris?	Yes No		
4. Is the rip rap intact?	☐Yes ✓No		

## Form A3

#### **Water Basins Checklist**

Plunge Pool/Outfall		Observation Notes	Repair Notes
1. Is the liner intact?	□Yes ✓No		
2. Is the plunge pool clear of debris?	□Yes ☑No		
3. Is the outfall clear of debris?	□Yes ☑No		
4. Is the rip rap intact?	□Yes ☑No		
5. Is water free flowing through the outfall?	□Yes ☑No		

## Form A4

#### **Barrier Wall Checklist**

#### **Inspection Schedule**

Inspected by Michael Povthress	Inspection Date 6-22-18

3:1 Slope - General		Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?	Yes VNo		
2. Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes No		
3. Are there cracks in the soil due to dry conditions?	Yes No		
5. Is the GCL exposed?  If so, is the GCL damaged?	Yes ✓ No Yes ✓ No		
3:1 Slope - Vegetative Cover			
1. Are there bare spots in the cover?	Yes <b>V</b> No		
2. Is there any dead vegetation?	Yes No		
	Yes No		
4. Is there evidence of burrowing animals?	Yes 🗸 No		

## Form A4

1:1 Slope - General		Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?	Yes <b>√</b> No		
Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes No		
3. Is the GCL exposed?  If so, is the GCL damaged?	Yes No		
1:1 Slope - Vegetative Cover			
1. Are there bare spots in the cover?	Yes VNo		
2. Is there any dead vegetation?	Yes <b>√</b> No		
3. Are there any trees (deep-rooted vegetation)?	Yes <b>√</b> No		
4. Is there evidence of burrowing animals?	Yes <b>√</b> No		
4.4 Clause Bashata			
1:1 Slope - Baskets		T	T
Have the baskets collapsed or moved out of place?	Yes √No		
2. Are there signs of erosion within the baskets?	Yes <b>√</b> No		
3. Are there signs of slippage?	Yes VNo		

## Form A4

Top of Wall - General		Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?			
2. Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes ✓ No		
3. Are there cracks in the soil due to dry conditions?	Yes No		
Top of Wall - Vegetative Cover			
1. Are there bare spots in the cover?	Yes ✓ No		
2. Is there any dead vegetation?	Yes <b>√</b> No		
3. Are there any trees (deep-rooted vegetation)?	Yes <b>√</b> No		
4. Is there evidence of burrowing animals?	Yes <b>√</b> No		
Top of Wall - Drainage Swale			
1. Is there standing water?	Yes <b>√</b> No		
2. Is there any debris present?	Yes <b>√</b> No		

# Form A1 GCL Cap Checklist

#### **Inspection Schedule**

Year 1 through Year 2 – Quarterly Inspections Year 3 through Year 5 – Semi-annual Inspections

Inspected by <u>Michael</u>	Poythress	Inspection Date <u>12-24-18</u>	
General		Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?	res <b>√</b> No		
2. Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes No		
3. Are there cracks in the soil due to dry conditions?	Yes No		
Vegetative Cover			
1. Are there bare spots in the cover?	Yes No		
2. Is there any dead vegetation?	∏Yes ✓ No		
3. Are there any trees (deep-rooted vegetation)?	<b>V</b> Yes No	Winter season	
4. Is there evidence of burrowing animals?	Yes No		
5. Is the cover maintained or mowed?	Yes No		

## Form A1

## **GCL Cap Checklist**

Observation Notes	Repair Notes
No	
No	
No	
No	
No	
No	
No	
	No No No No No

## Form A2

### **Box Culvert System Checklist**

#### Inspection Schedule

Inspected by Michael Poythress		<u> </u>	Inspection Date <u>12-24-19</u>	
Top Fill			Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?	∏Yes ✓	No		
2. Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	<b>√</b> Yes	No		
3. Are there cracks in the soil due to dry conditions?	<b>√</b> Yes	No		
Vegetative Cover				
1. Are there bare spots in the cover?	□Yes ✓			
2. Is there any dead vegetation?	<b>√</b> Yes □		Winter season	
3. Are there any trees (deep-rooted vegetation)?	<b>√</b> Yes □	No		
4. Is there evidence of burrowing animals?	<b>√</b> Yes □	No		

## Form A2

## **Box Culvert System Checklist**

Clarifier Line Connection - Final Clarifier		Observation Notes	Repair Notes
1. Is there evidence of leaking?	√Yes □No		
2. Is there evidence of damage?	✓Yes ✓No		
3. Is there any debris blocking the grate?	✓Yes No		
Clarifier Line Connection - Aeration Basin Emerg 1. Is there evidence of leaking?	ency Discharge		
2. Is there evidence of damage?	☑Yes □No		
3. Is there any debris blocking the grate?	☑Yes □No		

## Form A2

## **Box Culvert System Checklist**

Clarifier Line Connection - Surface Water Drain a	t Southwest Co	orner of Aeration Basin	
1. Is there evidence of leaking?	□Yes ☑No		
2. Is there evidence of damage?	□Yes ☑No		
3. Is there any debris blocking the grate?	□Yes □No		
Inlet at Forebay		Observation Notes	Repair Notes
1. Is debris present?	Yes □No		
2. Is the water free flowing?	<b>√</b> Yes <b>□</b> No		
Outlet at Plunge Pool	•		
1. Is debris present?	□Yes ☑No		
2. Is the water free flowing?	√Yes □No		

# Form A3 Water Basins Checklist

#### Inspection Schedule

NA dialogal Developmen	12 24 40
Inspected by Michael Poythress	Inspection Date 12-24-19

Sedimentation Basin		Observation Notes	Repair Notes
1. Are there cracks in the soil due to dry conditions?	Yes 🗸 No		
2. Is the outlet clear of debris?	✓Yes □No		
3. Is the rip rap along drainage runs intact?	✓Yes □No		
4. Are there signs of erosion along sides?	□Yes ☑No		
Forebay	1	1	<u> </u>
1. Is the liner intact?	<b>√</b> Yes <b>N</b> o	Winter season	
2. Is the forebay clear of debris?	☑Yes ☐No		
3. Are the discharge pipes clear of debris?	✓Yes □No		
4. Is the rip rap intact?	☑Yes □No		

## Form A3

#### **Water Basins Checklist**

Plunge Pool/Outfall		Observation Notes	Repair Notes
1. Is the liner intact?	✓Yes □No		
2. Is the plunge pool clear of debris?	√Yes □No		
3. Is the outfall clear of debris?	✓Yes □No		
4. Is the rip rap intact?	✓Yes □No		
5. Is water free flowing through the outfall?	✓Yes □No		

## Form A4

#### **Barrier Wall Checklist**

#### Inspection Schedule

Inspected by Michael Poythress	Inspection Date 12-24-18	

3:1 Slope - General		Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?	Yes VNo		
2. Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes No		
3. Are there cracks in the soil due to dry conditions?	Yes No		
5. Is the GCL exposed?  If so, is the GCL damaged?	Yes ✓ No Yes ✓ No		
3:1 Slope - Vegetative Cover			
	<b>√</b> Yes No		
2. Is there any dead vegetation?	Yes No	Winter season	
	✓Yes No		
4. Is there evidence of burrowing animals?	Yes <b>V</b> No		

## Form A4

1:1 Slope - General		Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?	Yes <b>√</b> No		
Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes No		
3. Is the GCL exposed?  If so, is the GCL damaged?	Yes No		
1:1 Slope - Vegetative Cover			
1. Are there bare spots in the cover?	Yes VNo		
2. Is there any dead vegetation?	Yes <b>√</b> No		
3. Are there any trees (deep-rooted vegetation)?	Yes <b>√</b> No		
4. Is there evidence of burrowing animals?	Yes <b>√</b> No		
4.4 Clause Bashata			
1:1 Slope - Baskets		T	T
Have the baskets collapsed or moved out of place?	Yes No		
2. Are there signs of erosion within the baskets?	Yes <b>√</b> No		
3. Are there signs of slippage?	Yes No		

## Form A4

Top of Wall - General		Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?	Yes 🗸 No		
Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes ✓ No		
Are there cracks in the soil due to dry conditions?	Yes ✓ No Yes ☐ No		
Top of Wall - Vegetative Cover			
1. Are there bare spots in the cover?	Yes <b>√</b> No		
2. Is there any dead vegetation?	Yes ✓ No		
3. Are there any trees (deep-rooted vegetation)?	Yes No	Mimosa trees present. nonedeep rooted.	pulled out minosa trees.
4. Is there evidence of burrowing animals?	Yes No		
Top of Wall - Drainage Swale			
1. Is there standing water?	Yes √No		
2. Is there any debris present?	Yes <b>√</b> No		

# Form A1 GCL Cap Checklist

#### **Inspection Schedule**

Year 1 through Year 2 – Quarterly Inspections Year 3 through Year 5 – Semi-annual Inspections

Inspected by Michael	Poythress	Inspection Date <u>3-20-19</u>	
General		Observation Notes	Repair Notes
L. Are there signs of subsidence (visible low spots where water is ponding)?	Yes No		
2. Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes ✓ No		
3. Are there cracks in the soil due to dry conditions?	Yes ✓ No		
/egetative Cover	•		
L. Are there bare spots in the cover?	Yes No	Some bare spots.	
2. Is there any dead vegetation?	Yes No		
3. Are there any trees (deep-rooted vegetation)?	Yes No		
I. Is there evidence of burrowing animals?	Yes No	Small Mimosa tress present	Removed Mimosa tress.
5. Is the cover maintained or mowed?	✓ Yes No		

## Form A1

## **GCL Cap Checklist**

Swales	Observation Notes	Repair Notes
standing water?		
any debris present?	0	
ised		
xposed anywhere on the cover?	0	
the exposed GCL damaged?	0	
anhole clear of debris?	0	
Pipe on Southeastern Corner		
pe clear of debris?		
pe intact (no evidence of crushing or nt)?	0	
the exposed GCL damaged?  anhole clear of debris?  Pipe on Southeastern Corner  pe clear of debris?	0	

## Form A2

### **Box Culvert System Checklist**

#### Inspection Schedule

Inspected by <u>Michael F</u>	Poythress	Inspection Date <u>03-20-19</u>		
Top Fill		Observation Notes	Repair Notes	
Are there signs of subsidence (visible low spots where water is ponding)?	∏Yes √No			
2. Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	√Yes √No			
3. Are there cracks in the soil due to dry conditions?	□Yes ✓No	Some bare spots.		
Vegetative Cover				
1. Are there bare spots in the cover?	✓Yes □No			
2. Is there any dead vegetation?	□Yes ✓No			
3. Are there any trees (deep-rooted vegetation)?	√Yes √No	Small Mimosa tress present		
4. Is there evidence of burrowing animals?	√Yes √No		Removed Mimosa tress.	

## Form A2

## **Box Culvert System Checklist**

Clarifier Line Connection - Final Clarifier		Observation Notes	Repair Notes
1. Is there evidence of leaking?	▼Yes ▼No		
2. Is there evidence of damage?	✓Yes ✓No		
3. Is there any debris blocking the grate?	✓Yes ✓No		
Clarifier Line Connection - Aeration Basin Eme  1. Is there evidence of leaking?	rgency Discharge		
2. Is there evidence of damage?	✓Yes ✓No		
3. Is there any debris blocking the grate?	✓Yes ✓No		

## Form A2

## **Box Culvert System Checklist**

Clarifier Line Connection - Surface Water I	Drain at Southwest C	orner of Aeration Basin		
1. Is there evidence of leaking?	☐Yes ☑No			
2. Is there evidence of damage?	☐Yes ☑No			
3. Is there any debris blocking the grate?	☐Yes ☐No			
Inlet at Forebay		Observation Notes	Repair Notes	
1. Is debris present?	☐Yes ✓No			
2. Is the water free flowing?	✓Yes No			
Outlet at Plunge Pool				
1. Is debris present?	□Yes ☑No			
2. Is the water free flowing?	✓Yes □No			

# Form A3 Water Basins Checklist

#### Inspection Schedule

Inspected by Michael Poythress	Inspection Date 03-20-19	

Sedimentation Basin		Observation Notes	Repair Notes
1. Are there cracks in the soil due to dry conditions?	☐Yes ✓No		
2. Is the outlet clear of debris?	√Yes √No		
3. Is the rip rap along drainage runs intact?	□Yes ✓No	Some bare spots.	
4. Are there signs of erosion along sides?	<b>√</b> Yes <b>N</b> o		
Forebay	<u> </u>		
1. Is the liner intact?	□Yes ✓No		
2. Is the forebay clear of debris?	✓Yes ✓No	Small Mimosa tress present	
3. Are the discharge pipes clear of debris?	✓Yes ✓No		Removed Mimosa tress.
4. Is the rip rap intact?	✓Yes ✓No		

## Form A3

#### **Water Basins Checklist**

		Observation Notes	Repair Notes
1. Is the liner intact?	☑Yes ☐No		
2. Is the plunge pool clear of debris?	☑Yes ☑No		
3. Is the outfall clear of debris?	✓Yes ✓No		
4. Is the rip rap intact?	☑Yes ☑No		
5. Is water free flowing through the outfall?	☑Yes ☑No		

## Form A4

#### **Barrier Wall Checklist**

#### Inspection Schedule

Inspected by Michael Poythress	Inspection Date 3-20-19

3:1 Slope - General		Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?	Yes No		
Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes No		
3. Are there cracks in the soil due to dry conditions?	Yes 🗸 No		
5. Is the GCL exposed?  If so, is the GCL damaged?	Yes No	Some bare spots.	
3:1 Slope - Vegetative Cover			
1. Are there bare spots in the cover?	Yes No		
2. Is there any dead vegetation?	Yes No		
3. Are there any trees (deep-rooted vegetation)?	Yes No	Small Mimosa tress present	Removed Mimosa tress.
4. Is there evidence of burrowing animals?	Yes 🗸 No		

## Form A4

1:1 Slope - General		Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?	Yes <b>√</b> No		
2. Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes No		
3. Is the GCL exposed? If so, is the GCL damaged?	Yes No		
1:1 Slope - Vegetative Cover			
1. Are there bare spots in the cover?	Yes VNo		
2. Is there any dead vegetation?	Yes <b>√</b> No		
3. Are there any trees (deep-rooted vegetation)?	Yes <b>√</b> No		
4. Is there evidence of burrowing animals?	Yes <b>√</b> No		
4.4 Clause Bashata			
1:1 Slope - Baskets		T	T
Have the baskets collapsed or moved out of place?	Yes √No		
2. Are there signs of erosion within the baskets?	Yes <b>√</b> No		
3. Are there signs of slippage?	Yes <b>√</b> No		

## Form A4

Top of Wall - General		Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?	Yes <b>√</b> No		
2. Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes ✓ No		
3. Are there cracks in the soil due to dry conditions?	Yes / No Yes / No		
Top of Wall - Vegetative Cover			1
1. Are there bare spots in the cover?	Yes 🗸 No		
2. Is there any dead vegetation?	Yes <b>√</b> No		
3. Are there any trees (deep-rooted vegetation)?	Yes <b>√</b> No	Small Mimosa trees present. not deep rooted.	Removed Mimosa trees.
4. Is there evidence of burrowing animals?	Yes VNo		
Top of Wall - Drainage Swale			1
1. Is there standing water?	Yes No		
2. Is there any debris present?	Yes <b>√</b> No		

# Form A1 GCL Cap Checklist

#### **Inspection Schedule**

Year 1 through Year 2 – Quarterly Inspections Year 3 through Year 5 – Semi-annual Inspections

Inspected by Austin Gonzealez / Michael Poythress	Inspection Date 8-16-19

General		Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?	res <b>√</b> No		
2. Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes No		
3. Are there cracks in the soil due to dry conditions?	Yes No		
Vegetative Cover			
1. Are there bare spots in the cover?	Yes No		
2. Is there any dead vegetation?	Yes No		
3. Are there any trees (deep-rooted vegetation)?	Yes No		
4. Is there evidence of burrowing animals?	Yes No		
5. Is the cover maintained or mowed?	Yes No		

## Form A1

## **GCL Cap Checklist**

Drainage Swales		Observation Notes	Repair Notes	
1. Is there standing water?	Yes No			
2. Is there any debris present?	Yes No			
GCL Exposed				
Is GCL exposed anywhere on the cover?	Yes No			
2. If yes, is the exposed GCL damaged?	Yes <b>√</b> No			
Manhole				
Is the manhole clear of debris?	Yes <b>V</b> No			
Drainage Pipe on Southeastern Corner				
1. Is the pipe clear of debris?	Yes No			
2. Is the pipe intact (no evidence of crushing or detachment)?	Yes No			

## Form A2

## **Box Culvert System Checklist**

## **Inspection Schedule**

Year 1 through Year 5 – Semi-Annual Inspections

Inspected by Michael Poythress / Austin Gonzaeles	Inspection Date 8-16-19

Top Fill		Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?	∏Yes ✓No		
2. Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes No		
3. Are there cracks in the soil due to dry conditions?	∏Yes √No		
Vegetative Cover			
1. Are there bare spots in the cover?	□Yes ✓No		
2. Is there any dead vegetation?	VYes □No		
3. Are there any trees (deep-rooted vegetation)?	√Yes No		
4. Is there evidence of burrowing animals?	✓Yes No		

## Form A2

## **Box Culvert System Checklist**

Clarifier Line Connection - Final Clarifier		Observation Notes	Repair Notes
Is there evidence of leaking?	✓Yes No		
2. Is there evidence of damage?	<b>7</b> Yes □No		
3. Is there any debris blocking the grate?	✓Yes No		
Clarifier Line Connection - Aeration Basin Emerge	ncy Discharge		
1. Is there evidence of leaking?	✓Yes ✓No		
2. Is there evidence of damage?	✓Yes ✓No		
3. Is there any debris blocking the grate?	✓Yes ✓No		

## Form A2

## **Box Culvert System Checklist**

Clarifier Line Connection - Surface Water Drain a	t Southwest Co	orner of Aeration Basin	
1. Is there evidence of leaking?	□Yes ☑No		
2. Is there evidence of damage?	□Yes ☑No		
3. Is there any debris blocking the grate?	□Yes ☑No		
Inlet at Forebay		Observation Notes	Repair Notes
1. Is debris present?	Yes <b>√</b> No		
2. Is the water free flowing?	<b>√</b> Yes <b>□</b> No		
Outlet at Plunge Pool	•		
1. Is debris present?	□Yes ☑No		
2. Is the water free flowing?	∏Yes <b>∑</b> No		

# Form A3 Water Basins Checklist

## Inspection Schedule

Year 1 through Year 5 – Semi-Annual Inspections

Inspected by Michael Poythress / Austin Gonzaele	Inspection Date 8-16-19	
inspected by iviicitaet FOVLITIESS / AUSTITI GOTIZAETE	inspection date o-10-13	

Sedimentation Basin		Observation Notes	Repair Notes
1. Are there cracks in the soil due to dry conditions?	∏Yes		
2. Is the outlet clear of debris?	∏Yes ☑No		
3. Is the rip rap along drainage runs intact?	Yes ☑No		
4. Are there signs of erosion along sides?	■Yes ☑No		
Forebay	l	1	<u> </u>
1. Is the liner intact?	<b>V</b> Yes <b>N</b> o		
2. Is the forebay clear of debris?	√Yes No		
3. Are the discharge pipes clear of debris?	<b>√</b> Yes <b>N</b> o		
4. Is the rip rap intact?	<b>√</b> Yes <b>N</b> o		

## Form A3

## **Water Basins Checklist**

Plunge Pool/Outfall		Observation Notes	Repair Notes
1. Is the liner intact?	✓Yes □No		
2. Is the plunge pool clear of debris?	✓Yes □No		
3. Is the outfall clear of debris?	✓Yes ✓No		
4. Is the rip rap intact?	☑Yes ☑No		
5. Is water free flowing through the outfall?	✓Yes ✓No		

## Form A4

## **Barrier Wall Checklist**

## **Inspection Schedule**

Year 1 through Year 5 – Semi-Annual Inspections

Inspected by	Austin Gonzealez	/ Michael Povthress	Inspection Date 8-16-19	

3:1 Slope - General		Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?	Yes VNo		
2. Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes 🗸 No		
3. Are there cracks in the soil due to dry conditions?	Yes No		
5. Is the GCL exposed?  If so, is the GCL damaged?	Yes ✓ No Yes ✓ No		
3:1 Slope - Vegetative Cover		I.	
Are there bare spots in the cover?	Yes No		
2. Is there any dead vegetation?	Yes No		
3. Are there any trees (deep-rooted vegetation)?	Yes No		
4. Is there evidence of burrowing animals?	Yes 🗸 No		

## Form A4

## **Barrier Wall Checklist**

1:1 Slope - General		Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?	Yes 🗸 No		
Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes No		
3. Is the GCL exposed? If so, is the GCL damaged?	Yes No		
1:1 Slope - Vegetative Cover			
1. Are there bare spots in the cover?	Yes No		
2. Is there any dead vegetation?	Yes <b>√</b> No		
3. Are there any trees (deep-rooted vegetation)?	Yes √No		
4. Is there evidence of burrowing animals?	Yes ✓ No		
1:1 Slope - Baskets			
1. Have the baskets collapsed or moved out of place?	Yes √No		
2. Are there signs of erosion within the baskets?	Yes <b>√</b> No		
3. Are there signs of slippage?	Yes <b>√</b> No		

## Form A4

## **Barrier Wall Checklist**

Top of Wall - General		Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?			
2. Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes ✓ No		
3. Are there cracks in the soil due to dry conditions?	Yes No		
Top of Wall - Vegetative Cover			
1. Are there bare spots in the cover?	Yes ✓ No		
2. Is there any dead vegetation?	Yes <b>√</b> No		
3. Are there any trees (deep-rooted vegetation)?	Yes <b>√</b> No		
4. Is there evidence of burrowing animals?	Yes <b>√</b> No		
Top of Wall - Drainage Swale			
1. Is there standing water?	Yes <b>√</b> No		
2. Is there any debris present?	Yes <b>√</b> No		

# Form A1 GCL Cap Checklist

## **Inspection Schedule**

Year 1 through Year 2 – Quarterly Inspections Year 3 through Year 5 – Semi-annual Inspections

Inspected by <u>Austin (</u>	Gonzalez	Inspection Date	6/5/2020	
General		Observation Notes	Repair Notes	
Are there signs of subsidence (visible low spots where water is ponding)?	Yes No			
2. Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes No			
3. Are there cracks in the soil due to dry conditions?	Yes No			
Vegetative Cover	I			
1. Are there bare spots in the cover?	Yes ✓ No			
2. Is there any dead vegetation?	Yes No			
3. Are there any trees (deep-rooted vegetation)?	Yes No			
4. Is there evidence of burrowing animals?	Yes ✓ No			
5. Is the cover maintained or mowed?	Yes No			

## Form A1

## **GCL Cap Checklist**

Swales	Observation Notes	Repair Notes
standing water?		
any debris present?	0	
ised		
xposed anywhere on the cover?	0	
the exposed GCL damaged?	0	
anhole clear of debris?	0	
Pipe on Southeastern Corner		
pe clear of debris?		
pe intact (no evidence of crushing or nt)?	0	
the exposed GCL damaged?  anhole clear of debris?  Pipe on Southeastern Corner  pe clear of debris?	0	

## Form A2

## **Box Culvert System Checklist**

## **Inspection Schedule**

Year 1 through Year 5 – Semi-Annual Inspections

Inspected by <u>Austin G</u>	onzalez	Inspection Date <u>6/5/2020</u>	
Top Fill		Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?	∏Yes <b>√</b> No		
2. Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	√Yes □No		
3. Are there cracks in the soil due to dry conditions?	□Yes ✓No		
Vegetative Cover			
1. Are there bare spots in the cover?	Yes No		
2. Is there any dead vegetation?	√Yes □No		
3. Are there any trees (deep-rooted vegetation)?	Yes No		
4. Is there evidence of burrowing animals?	√Yes □No		

## Form A2

## **Box Culvert System Checklist**

Clarifier Line Connection - Final Clarifier		Observation Notes	Repair Notes
1. Is there evidence of leaking?	□Yes ☑No		
2. Is there evidence of damage?	☐Yes ☑No		
3. Is there any debris blocking the grate?	□Yes ☑No		
Clarifier Line Connection - Aeration Basin Emerge	ency Discharge		
1. Is there evidence of leaking?	□Yes ✓No		
2. Is there evidence of damage?	□Yes ✓No		
3. Is there any debris blocking the grate?	_Yes √No		

## Form A2

## **Box Culvert System Checklist**

Clarifier Line Connection - Surface Water Drain a	t Southwest Co	orner of Aeration Basin	
1. Is there evidence of leaking?	□Yes ☑No		
2. Is there evidence of damage?	∏Yes <b>☑</b> No		
3. Is there any debris blocking the grate?	□Yes ☑No		
Inlet at Forebay		Observation Notes	Repair Notes
1. Is debris present?	√Yes No		
2. Is the water free flowing?	<b>√</b> Yes <b>□</b> No		
Outlet at Plunge Pool	•		
1. Is debris present?	□Yes ☑No		
2. Is the water free flowing?	√Yes □No		

# Form A3 Water Basins Checklist

## Inspection Schedule

Year 1 through Year 5 – Semi-Annual Inspections

Inspected by Austin Gonzalez	Inspection Date 6/5/2020	

Sedimentation Basin		Observation Notes	Repair Notes
1. Are there cracks in the soil due to dry conditions?	☐Yes ☑No		
2. Is the outlet clear of debris?	<b>☑</b> Yes <b>□</b> No		
3. Is the rip rap along drainage runs intact?	Yes ☑No		
4. Are there signs of erosion along sides?	☐Yes ☑No		
Forebay		1	<u> </u>
1. Is the liner intact?	<b>Z</b> Yes <b>N</b> o		
2. Is the forebay clear of debris?	☐Yes ✓No		
3. Are the discharge pipes clear of debris?	<b>Z</b> Yes <b>N</b> o		
4. Is the rip rap intact?	∏Yes ☑No		

## Form A3

## **Water Basins Checklist**

Plunge Pool/Outfall		Observation Notes	Repair Notes
1. Is the liner intact?	Yes No		
2. Is the plunge pool clear of debris?	Yes No		
3. Is the outfall clear of debris?	Yes No		
4. Is the rip rap intact?	Yes No		
5. Is water free flowing through the outfall?	Yes No		

## Form A4

## **Barrier Wall Checklist**

## **Inspection Schedule**

Year 1 through Year 5 – Semi-Annual Inspections

Inspected by Austin Gonzalez	Inspection Date 6/5/2020	
inspected by Austin Gonzalez	inspection date 0/3/2020	

3:1 Slope - General		Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?	Yes VNo		
2. Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes 🗸 No		
3. Are there cracks in the soil due to dry conditions?	Yes No		
5. Is the GCL exposed?  If so, is the GCL damaged?	Yes ✓ No Yes ✓ No		
3:1 Slope - Vegetative Cover		I.	
Are there bare spots in the cover?	Yes No		
2. Is there any dead vegetation?	Yes No		
3. Are there any trees (deep-rooted vegetation)?	Yes No		
4. Is there evidence of burrowing animals?	Yes 🗸 No		

## Form A4

## **Barrier Wall Checklist**

1:1 Slope - General		Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?	Yes <b>√</b> No		
Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes No		
3. Is the GCL exposed?  If so, is the GCL damaged?	Yes No		
1:1 Slope - Vegetative Cover			
1. Are there bare spots in the cover?	Yes VNo		
2. Is there any dead vegetation?	Yes <b>√</b> No		
3. Are there any trees (deep-rooted vegetation)?	Yes <b>√</b> No		
4. Is there evidence of burrowing animals?	Yes <b>√</b> No		
4.4 Clause Bashata			
1:1 Slope - Baskets		T	T
Have the baskets collapsed or moved out of place?	Yes <b>√</b> No		
2. Are there signs of erosion within the baskets?	Yes <b>√</b> No		
3. Are there signs of slippage?	Yes VNo		

## Form A4

## **Barrier Wall Checklist**

Top of Wall - General		Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?			
2. Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes ✓ No		
3. Are there cracks in the soil due to dry conditions?	Yes No		
Top of Wall - Vegetative Cover			
1. Are there bare spots in the cover?	Yes ✓ No		
2. Is there any dead vegetation?	Yes <b>√</b> No		
3. Are there any trees (deep-rooted vegetation)?	Yes <b>√</b> No		
4. Is there evidence of burrowing animals?	Yes <b>√</b> No		
Top of Wall - Drainage Swale			
1. Is there standing water?	Yes <b>√</b> No		
2. Is there any debris present?	Yes <b>√</b> No		

Post Closure Five Year Report; Armstrong World Industries Operable Unit -1 (WWTP Landfill) Macon, Georgia

## **APPENDIX A.3**

PE INSPECTION CHECKLISTS AND PHOTOLOG (OCTOBER 7, 2020)

Inspection Schedule

Year 1 through Year 2 – Quarterly Inspections Year 3 through (ear 5 Semi-annual Inspections

	GCL Cap Check	necklist	klist			
Inspected by	Lette Col	e, V.C. Inspection Date	10	IT	2020	

General		Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?	Yes No	On back site (south) of caper transition from hoviz to slope slowling can be seen - stend y	a good replacement filler
2. Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes No	Grand drainage throughout. In cher trendes & suches are overground where the still functioning	I will be to do do do do do do
3. Are there cracks in the soil due to dry conditions?	Yes (No)	Turigation system was a good idea to prount drought of Keeps vegetation flourishing.	None
/egetative Cover		)	
1. Are there bare spots in the cover?	Yes (No	Great cover by many different types of vegetation	None
2. Is there any dead vegetation?	Yes (No)	Dead registation is natural of being supplanted by new	None
3. Are there any trees (deep-rooted vegetation)?	Yes (No	No significant trees of size	though discovery
4. Is there evidence of burrowing animals?	Yes (No)	No burousing animals seen or Roles of Silvistance	None
5. Is the cover maintained or mowed?	Yes No	tallway was moved for me. Italy maintain	None

# AWI OU-1 Post Removal Monitoring and Maintenance Form A1 GCL Cap Checklist

Drainage Swales	0	Observation Notes	Repair Notes
1. Is there standing water?	Yes (No	Swales & anchor trendles had No stending water.	None
2. Is there any debris present?	Yes No	Cap is in good shape of functioning appollinator. No debois is put on the cap	None
GCL Exposed			
Is GCL exposed anywhere on the cover?	Yes (No)	No BCk is exposed. Onlewed mat for pathway	None
2. If yes, is the exposed GCL damaged?	Yes No	NH	None
Manhole	75		
1. Is the manhole clear of debris?	(Yes) No	nanbole is visible & accessible. Some vegetation growth around it, but our	Ve Noue
Drainage Pipe on Southeastern Corner			
1. Is the pipe clear of debris?	Yes No	Corld Not Locate	None
2. Is the pipe intact (no evidence of crushing or detachment)?	Yes No	- Overgrown in this	orea None

## Form A3 Water Basins Checklist

Inspection Schedule

Year 1 through Year 5 Semi-Annual Inspections Inspected by	Kilh	Cole, P. Finspection Date_	10/1/2020	<del>-</del>
Sedimentation Basin		Observation Notes	Repair Notes	
1. Are there cracks in the soil due to dry conditions?	Yes (No)	Sodimentation holding whater	basin None	
2. Is the outlet clear of debris?	Yes No	0		
3. Is the rip rap along drainage runs intact?	Yes No	Rip rap maintain protection Overgre	ing erosion Spray	Kill Remove
4. Are there signs of erosion along sides?	Yes (No	From what I could evosion was taking	See, No " place	7
Forebay		100		
1. Is the liner intact?	(Yes) No	Forebay liner & rip in the exosion	m was None	
2. Is the forebay clear of debris?	Yes No	There is some delay at the discharge of the to the box culverts	is caudit clear he foretry clear	Deloris Vegetation
3. Are the discharge pipes clear of debris?	Yes No	Discharge pipes from Storm pipes a wwTP clear of delon's	r sed basin	9
3. Is the rip rap intact?	Yes No	Rip rap is the	god shape None	

## Form A3

		Water Basins Checklist	
Plunge Pool/Outfall		Observation Notes	Repair Notes
1. Is the liner intact?	Yes No	good shape.	tain None
2. Is the plunge pool clear of debris?	Yes No	Pluge pool is any delovis (fast	clear of None
3. Is the outfall clear of debris?	Yes No	New RR orfa dear of delons	ll is None
4. Is the rip rap intact?	Yes No	Rip rap is shape	in good None
5. Is water free flowing through the outfall?	(Yes) No	Water flows through oute	El Greely None

# Form A2 Box Culvert System Checklist

Year 1 through Year 5 – Semi-Annual Inspections Inspected by	£ 00 01 - PE				
Top Fill	Observation Notes	Repair Notes			
Are there signs of subsidence (visible low spots where water is ponding)?  Yes  No.  No.  No.  No.  No.  No.  No.  No	Surface swer box autuers is in good shope. Solid	o Nove			
Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?  Yes  No.  No.  No.  No.  No.  No.  No.  No	No perosion @ inlet or outlet of culvert system	n None			
3. Are there cracks in the soil due to dry conditions?  Yes No.	is in excellent shape Dirable by heavy lexicl	al Nove			
Vegetative Cover	30 1000 0.0010	700-55			
1. Are there bare spots in the cover?	(grass) our culverts	None			
2. Is there any dead vegetation?  Yes No	Good, healthy stand	None			
3. Are there any trees (deep-rooted vegetation)?  Yes No	recently mowed Accessible	None			
4. Is there evidence of burrowing animals?  Yes No	Solid Surface- No holes	None			

Form A2

		<b>Box Culvert System Ch</b>	<u>ecklist</u>	
Clarifier Line Connection - Final Clarifier	0	Observation Notes	Re	epair Notes
1. Is there evidence of leaking?	Yes (No)	D's sharp Frank V	- is flowing & pipe system	None
2. Is there evidence of damage?	Yes (No	Competent sur erosion, No da	Pace. No	None
3. Is there any debris blocking the grate?	Yes (No	Free flow of from clairfur.	efferent Les Surge Post	None
Clarifier Line Connection - Aeration Basin Eme	ergency Discharge		. 1	
1. Is there evidence of leaking?	Yes No	Al connection	refore flow	Nove
2. Is there evidence of damage?	Yes No	No demage	to inlet	Nana
3. Is there any debris blocking the grate?	Yes (No)	Minor Legetation	ive covering.	Maintain open grates
				Free of vegetertive cover (spray kill remove weed

Form A2

Box Culvert System Checklist

rain at Southwest Con	rner of Aeration Basin			
Yes No	See Noone,	Chear	Maria	
Yes 190	C	4/	None	
Yes (No	ex	U	None	
L Comment	Observation Notes	Re	pair Notes	
Yes No	Some Vegetation	(Sticks) culvet.	Ranove debris.	spray/
(res ) (No	No Significan	Thockor		и
A.	0	0		
Yes (Nó)	117 N	1 (	None	
Yes No	Good flow, oper	en exit	None	
	Yes No  Yes No  Yes No  Yes No	Yes No  Observation Notes  Ves No  Some Vegetation  Some Vegetation  Ves No  Significant  Sig	Yes No See About chear  Yes No Observation Notes  (Yes) No Seme Vegetation (Sticks)  is cought at culturet. His Not arguit cant.  (Yes) No Water is Howing freely.  No Significant blockage  Yes No Free fouring water at some of the search of	Yes No See Noone, chear None  Yes No No None  Observation Notes  (Yes) No Seme Vegetation (Sticks)  No Caught at culture till Ramove vegetation (No Significant Backage  Yes (No Water is Howing freely No Significant Backage  Yes (No Free flowing water at safe of the culture of the culture of the control of

# Form A4 Barrier Wall Checklist

## Inspection Schedule

3:1 Slope - General	Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?	water ponding	re, or Nohe
2. Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	of erosion visible	, Slagling, None
3. Are there cracks in the soil due to dry conditions?	No cracking wh	Il louds None
If so, is the GCL damaged?  Ye  Ye	s W	ICL. Nous
3:1 Slope - Vegetative Cover	30	0,6
I. Are there bare spots in the cover?	exposed, but not	significantly None
. Is there any dead vegetation? Ye	s (No) Some græsses have due to heat (rye)	died will do Nove
. Are there any trees (deep-rooted vegetation)? Ye		Etres. Should cut down sapango nous best
. Is there evidence of burrowing animals? Yes	No Rober visible	indicating a pro

# Form A4

		Barrier Wall Checklist	
1:1 Slope - General		Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?	Yes (No	No erosion, subsider or sloughing was visib	None
Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes No	No preferential potherays visible where stormulath	None
3. Is the GCL exposed? If so, is the GCL damaged?	Yes (No	1	None
1:1 Slope - Vegetative Cover		hasices	, 00 -0
1. Are there bare spots in the cover?	Yes No	Good com veg regetation - Did Not Se exposed lun	None
2. Is there any dead vegetation?	Yes No	Good regetation growth	Nauc
3. Are there any trees (deep-rooted vegetation)?	Yes No	No trees or large Sul	os olomo
4. Is there evidence of burrowing animals?	Yes No	Heard ground uniquels,	None
1:1 Slope - Baskets		OD! JOHN NO WOLD	
Have the baskets collapsed or moved out of place?	Yes No	Baskets ore in place, Solid & poppelant Good	None
2. Are there signs of erosion within the baskets?	Yes No	Baskote (the ones I could se	
Are there signs of slippage?	Yes No	Badlets ore competent. In	None

## Form A4

**Barrier Wall Checklist** 

Top of Wall - General		Observation Notes	Repair Notes
Are there signs of subsidence (visible low spots where water is ponding)?	Yes No	Top of wall is solid. No subsidence	Done
Are there signs of erosion (obvious paths where storm water is flowing, cracking of soil)?	Yes No	No drainage petrs visible, outside Lanchon trench	None
3. Are there cracks in the soil due to dry conditions?	Yes (No Yes (No	No soil wacking visible to top of the wood	None
Top of Wall - Vegetative Cover	-	` 9	
1. Are there bare spots in the cover?	Yes (No)	Lots of regulation of top of well. No bore spots.	None
2. Is there any dead vegetation?	Yes (No)	No dead vigolation. Wild flowers weeks flourishing	None
3. Are there any trees (deep-rooted vegetation)?	Yes No	No deep vooted trees	None
4. Is there evidence of burrowing animals?	Yes (No	No animals seen or holes identified	None
Top of Wall - Drainage Swale		. 1	
1. Is there standing water?	Yes (No	Could Not access drainege swale. None	None
2. Is there any debris present?	Yes No	san from the sop or bottom of wall	None



Photo 1: Surface of horizontal cap over landfill. Good vegetative growth of the pollinator cap.



Photo 2: Well maintained growth throughout pollinator cap and established walking path.



OU-1 Remedy Inspection
October 7, 2020
Armstrong World Industries, Inc.

Armstrong World Industries, Inc. 4520 Broadway Macon, Georgia



Photo 3: Evidence of erosion along the southern slope near the top ridge. Underlying fill material exposed.



Photo 4: Erosion along the southeastern corner of the cap, exposing fill material.



OU-1 Remedy Inspection
October 7, 2020
Armstrong World Industries, Inc.
4520 Broadway Macon, Georgia



Photo 5: View of forebay to stormwater inlet to box culverts. Competent and in good shape.



Photo 6: View of plunge pool at discharge of box culverts. Area in good shape and no erosion evident.



OU-1 Remedy Inspection
October 7, 2020
Armstrong World Industries, Inc.

Armstrong World Industries, Inc. 4520 Broadway Macon, Georgia



Photo 7: View of Eastern MSE Wall at northeast corner of landfill. Wall competent with good vegetative growth.



Photo 8: View of top ridge of 3:1 slope along the eastern side of landfill. Drainage swale and vegetation competent.



Photo 9: View of MSE wall along the southeastern corner of landfill. Competent and stable condition with good vegetative growth.



OU-1 Remedy Inspection October 7, 2020

Armstrong World Industries, Inc. 4520 Broadway Macon, Georgia Post Closure Five Year Report; Armstrong World Industries Operable Unit -1 (WWTP Landfill) Macon, Georgia

## **APPENDIX B**

**LANDFILL REPAIR PHOTOLOG** 



Photo 1: : Vegetation cleared from southern slope revealing erosion issues with drainage swales (facing west).



Photo 2: Reshaping the upper swale on the southern slope with a mini-excavator (facing west).



Photo 3: Western side of upper swale reshaped (facing east).



Photo 4: Vegetation and deposited soil removed from lower swale (facing east).

RAMBOLL

OU-1 Landfill Cap Repair December 2020

Armstrong World Industries, Inc. 4520 Broadway Macon, Georgia



Photo 5: Geotextile fabric placed in the upper swale (facing west).



Photo 6: Riprap placed on top of the geotextile fabric, and straw matting placed adjacent to the swale to prevent erosion (facing east).



Photo 7: Riprap placed on the bank of the upper swale where sloughing occurred (facing west).



Photo 8: Riprap, geotextile fabric, and straw matting placed on the eastern side of the lower swale connecting the surface drainage with the plunge pool (facing east).

RAMBOLL

OU-1 Landfill Cap Repair December 2020

Armstrong World Industries, Inc. 4520 Broadway Macon, Georgia Post Closure Five Year Report; Armstrong World Industries Operable Unit -1 (WWTP Landfill) Macon, Georgia

# **APPENDIX C**

## **GROUNDWATER MONITORING DATA**

- MONITORING WELL MW-06R WELL LOG
- GROUNDWATER SAMPLING FIELD LOGS
- LABORATORY ANALYTICAL DATA

Post Closure Five Year Report; Armstrong World Industries Operable Unit -1 (WWTP Landfill) Macon, Georgia

# **APPENDIX C.1**

**MONITORING WELL MW-06R WELL LOG** 



- P:\GINT\PROJECTS\AWI-MACON.GPJ

BASIC SB & WELL LOG - GINT STD US LAB.GDT - 1/7/21

Ramboll US Corporation 1600 Parkwood Circle SE, Suite 310 Atlanta, GA 30339

# WELL ID:**MW-06R**BORING NUMBER:**MW-06R**

PAGE 1 OF 1

**CLIENT** Armstrong World Industries PROJECT NAME Macon, Georgia **PROJECT NUMBER** 1690019302 **PROJECT LOCATION** 4520 Broadway, Macon, GA 31206 **COMPLETED** \_11/17/20 DATE STARTED 11/16/20 LOGGED BY ADH CHECKED BY RGP **DRILLING CONTRACTOR** Geolab Drilling GROUND ELEVATION Not Measured TOC ELEVATION 319.13 ft DRILLING EQUIPMENT Track-mounted Geoprobe NORTHING Not Measured EASTING Not Measured **DRILLER** Randy Mason TOTAL BORING DEPTH 40 ft bgs BOREHOLE SIZE 8 in DRILLING METHOD Hollow Stem Auger/ Direct Push TOTAL WELL DEPTH 40 ft bgs SCREEN INTERVAL 30-40 ft SAMPLING METHOD Dual Tube Sampling System GROUNDWATER LEVEL AT TIME OF DRILLING 21.3 ft bgs 11/17/2020 LABORATORY ID **WATER LEVEL** RECOVERY (ft) GRAPHIC LOG PID (bpm) SAMPLE DESCRIPTION WELL CONSTRUCTION (ML) SILT, dark reddish brown (5YR 3/2), dry, non plastic. Flush-mount surface 0.3 completion 4 0.2 5 0.2 (SP) SAND, reddish yellow (7.5YR 7/6), poorly graded, dry, non plastic, 2 inch diameter, sch no odor. 0.2 3 40 PVC riser 0.2 10 0.2 portland cement 4 . (95%)/bentonite 0.1 (5%) grout 15 0.1 0.2 5 0.1 20 0.2 4 0.2 25 0.1 26.0 bentonite seal (SP-SM) SAND WITH SILT, white (5YR 8/1), wet, non plastic. 0 5 0.2 30 0.1 5 sand filter pack 0.1 (GP#1A) 35 0.006 inch slot, sch 40 PVC screen 0 40

Post Closure Five Year Report; Armstrong World Industries Operable Unit -1 (WWTP Landfill) Macon, Georgia

# **APPENDIX C.2**

**GROUNDWATER SAMPLING FIELD LOGS** 



Armstrong World Industries - Macon 4520 Broadway Macon, Georgia Low Flow Groundwater Sampling Field Log

Monitoring Well -

Sampling 1 Date (	Information MM/DD/YY) - Personnel - Weather -	10/ sun	07/	20		Well Info	Measured Dept Scr	h to Bottom - eened Zone - rump Intake -	30-4	TE BGS PUV
Samp	Oling Device -	pe	451 P + 0.1 SU	+3%	+ 10 %		post-Pump Dep	th to Water -	25.0 75.5	EMBTOC Sta
Time	Vol.	Rate mL/min	pH Std	Cond. us/cm	Turb. NTU	Temp.	ORP mV	DO mg/L	<b>DTW</b>	Appearance or Comments
1300 1305 1310 1315 1320 1325 1330 1335 1340		175 150 125 125 125 125 125 125	09 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	102.5 102.1 101.9 101.9 101.1 102.1 102.1	9915223 498 1915223 498	24.5 24.1 24.5 24.5 24.5 24.5 24.4 24.5 24.5 24.5	12 789 14 62 4 14 62 4 1 10 5 6 1 19 3 .8 1 19 9 1 19 9 1 19 9	900281 90028 9555 9555 9555	25.59 25.59 25.59 25.59 25.59 25.59 25.59 25.59	Clear no ador clear no ador clear no ador clear no ador clear no ador clear woodor clear no ador
.0116	SAMPLE									
Appea	Appearance arance After	at Start - Purging -	= 100 MS	liters mL/min		Additional ditional Sa	Samp Sample - mple ID -	mple ID - le Time - Purging - Sampling -	PCB	ft bTOC ft bTOC

# RAMBOLL

Armstrong World Industries - Macon 4520 Broadway Macon, Georgia Low Flow Groundwater Sampling Field Log

Monitoring Well -

4520 Broadway Macon, Georgia	start @
Sampling Information	Well Information 20(05 1001
Date (MM/DD/YY) - 10   0   1	Measured Depth to Bottom - ft BTOC
Personnel - COSON.	Screened Zone - 20-40t BGS
Weather - OVER COSTIF	09 100s Depth to Pump Intake - 21 15 4-6GS 35
Sampling Device - DON DON	Pre-Pump (Static) Depth to Water - 20,15 ft BTOC
1/1	Post-Pump Depth to Water - 2 DIP T BTOC

Time Vol.	Rate mL/min	± 0.1 S∪ <b>pH</b> Std	£ 3 % Cond. us/cm	± 10 % Turb. NTU	±3C Temp.	ORP	DO ma/	76	Appearance or	
1005 1005 1015 1020 1025 1030 1035 1049 1045 1065			uclem	NTU STIE		Maria	C = 0:	76-	Commonte	ight) no codor nt) ne codor

۱۱۱( lotes/Sa	imple Information		Sample ID Sample Time	
Appe	Appearance at Start earance After Purging -	A	Additional Sample dditional Sample ID -	
Analyses	Total Volume Purged - Purge Rate -	liters mL/min 10Cs, RCPA	DTW After Purging - DTW at Time of Sampling -	20-5] n bTOC 20-419 n bTOC
Notes	field #	silter Rok	2A metals +	- POBs

all bottles total

Perined with -OSD - same notes



## Low Flow Groundwater Sampling Field Log

Monitoring Well - MW-05D

ampling :	Informatio					Well Info	rmation			# BTOC 46% C # BGS # BGS # BTOC/44, 24 pl 672	Non
Date (	MM/DD/YY) - Personnel -	10/06	20 + L, Loga	. 1			Measured Depth Screen	to Bottom -	71-91-	ft BTOC 401.	on put
	Weather -	754	cloudy				Depth to P	ump Intake -	80	ft BGS	
Sam	pling Device -	Submers	itle pamp	Horrica	ne XL)	Pre-Pun	np (Static) Dep Post-Pump Dep	th to Water -	45,96	я втос/44, 24 р 672 я втос	x w/pump)
Time	Vol.	Rate mL/min	± 0.1 SU <b>pH</b> Std	± 3 % Cond. us/cm	± 10 % Turb. NTU	± 3 C Temp.	± 10 mV ORP mV	± 10 % <b>DO</b> mg/L	0.3 ft	Appearance or Comments	
731		80000 77777 80000	05555555555555555555555555555555555555	039	907 90 907 90	21.14 (2).1.2 (2).2	197 (c) 215 293 1 298 9 300 (b) 301 (d)	95 555	47.19 52.98 55.23 56.49 58.78 61.18	Clear no Clear no Clear no Clear no Clear no	odor odor odor
800	SAMPLE										
otes/San	iple Information	at Start -				Additional litional Sa	Samp Sample -	mple ID - le Time -		-	
nalyses	otal Volume	e Purged - rge Rate -		liters mL/min	RCK	2 ATW	DTW After		P	ft bTOC ft bTOC	



Armstrong World Industries - Macon 4520 Broadway Macon, Georgia

Monitoring Well -	MW-06R

#### **Sampling Information**

#### **Well Information**

Date (MM/DD/YY) -	November 19, 2020	Measured Depth to Bottom -	39.45	ft BTOC
Personnel -	Aaron Hottenstein	Screened Zone -	30 - 40	ft BGS
Weather -	sun, 50°F	Depth to Pump Intake -	35.0	ft BGS
Sampling Device -	Peristaltic Pump	Pre-Pump (Static) Depth to Water -	21.77	ft BTOC
		Post-Pump Depth to Water -	21.84	ft BTOC

Stabilization	Criteria		± 0.1 SU	± 3 %	± 10 %	± 3 C	± 10 mV	± 10 %	0.3 ft	
Time	Vol.	Rate	pН	Cond.	Turb.	Temp.	ORP	DO	DTW	Appearance or
	L	mL/min	Std	us/cm	NTU	С	mV	mg/L	ft	Comments
9:35		200	6.34	109	4.37	20.10	112	3.53	21.86	clear
9:40	0.0	200	5.83	107	4.29	20.40	123	3.59	21.85	clear
9:45	1.0	200	5.14	107	4.04	20.00	144	3.82	21.84	clear
9:50	2.0	200	5.06	113	3.99	20.20	143	3.64	21.84	clear
9:55	3.0	200	4.98	119	3.52	20.10	142	3.43	21.84	clear
10:00	4.0	200	5.04	120	2.34	20.60	140	3.24	21.84	clear
10:05	5.0	200	4.97	121	1.94	20.80	144	2.85	21.84	clear
10:10	6.0	200	5.02	121	1.60	20.30	141	2.79	21.84	clear
10:15	7.0	200	4.95	121	1.49	20.40	146	2.57	21.84	clear
10:20	8.0	200	4.93	121	1.24	20.60	152	2.44	21.84	clear
10:25	9.0	200	5.01	121	1.03	20.40	148	2.41	21.84	clear
10:30	10.0	200	4.94	122	0.93	20.40	151	2.39	21.84	clear
10:35	11.0									
10:40	11.0									
10:45	11.0									
10:50	11.0									
10:55	11.0									
11:00	11.0									
11:05	11.0									
11:10	11.0									
11:15	11.0									
11:20	11.0									
11:25	11.0									
11:30	11.0									
11:35	11.0									
11:40	11.0									
11:45	11.0									
11:50	11.0									
11:55	11.0									
12:00	11.0									
12:05	11.0									
12:10	11.0									
12:15	11.0									
12:20	11.0									
12:25	11.0									
12:30	11.0									
12:35	11.0									
10:35	SAMPLE	200	4.94	122	0.9	20.40	151	2.39	21.84	clear

Notes/Sample Information		Sample ID - <u>MW-06R 20201119</u> Sample Time - <u>10:35</u>
Appearance at Start - Appearance After Purging -		Additional Sample - MS/MSD Additional Sample ID - MW-06R MS/MSD 20201119
Total Volume Purged - Purge Rate -	11.0 liters 200-200 mL/min	DTW After Purging - 21.84 ft bTOC DTW at Time of Sampling - 21.84 ft bTOC
Analyses VOCs, SVOCs, Metals	and PCBs	
Notes		



# CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

etion	A d Cilent Information:	Section B Required Pr	oject I	nformation:					Sectio	n C e Info	rmatic	on:											P	age :	1	Of	1
npan	y: Ramboll Environ US Corporation	Report To:	Cole,						Attenti														_				
iress		Copy To: Y	eb,	patch	2++					any Na	ame:																
_	0, Atlanta, GA 30339			CHET	INK	MINIK	2011.0					_		_	_	_			_	_				Regula	story Age	ncy	
	kcole@ramboll.com	Purchase Or				1102111		_	Pace C	-			0.0	W. C.S.		.0.20	- C- No.	W 17.14	3		-			10000	10000000		
one:	(404)354-2950 Fax:	Project Name Project #:		AWI facility F	roj #: 169	0018899				Project Profile		12686		dta.kun	ugan	ty@p	acela	08,00	m,	_	-			State	/ Location	n	
quest	ed blie bale.	r rojeca w.					_	+	400	TOTAL		12000		_	1	U.S.	9-1	Ren	uester	Analy	sis Filte	ered (Y/	N)	9-10	GA		CHICA S
	SAMPLE ID  SAMPLE ID  One Character per box.  (A.7, 0.9 /  ARD  Waster VI V	PI		_	COLLE	ECTED	ND	EMPATCOLLECTION	# OF CONTAINERS		Pre	serva	atives			/ses Test Y/N	List	adired Volume						Residual Chlorine (Y/N)			1
ITEM #	Sample lds must be unique	TS	MATRIX C	SAMPLE TYPE				SAMPLET	# OF CONTAIN	H2SO4	HNO3	HCI	NaOH Na2S2O3	Methanol	Other	Analyses	8260 Full List	ORO PCE	RCRA Metals	1	Ш			esidual			
Concessor of	CALL Allers - Don't to	201 - 2	-		TIME	DATE	TIME			_	+-	_	ZZ	Σ	0	_	_	_	-	+	+	-		œ	-		
1		10620							8 -		1	3					3 2	2	- 1								
A SUPPLIED	GW-MW05-AWI-1	00770	WIK	3 10/07/20	1110				34		1	3					3 2	2 2	-11			1					
2	GW-MW05-F-AWI-1	00720	WT	6 10/01/20	1110				32	_	1					1		2	1	1					fie	19 ti	1+-exe
4	GW-MWO4-AWI-10	00770	WIC	3 Jolonho	1345				8/2	1	1	3				- 1	3 2	2 2									
5 -	CHAMOS	7.77						H		+		+	+	H		+	-			-	$\blacksquare$				EW	101	07/20
6	GW-MW04-DUP-AWI	-100720	WT (	S voloniza	1345	7			84		1	3		П		ſ	32	2 2	1		T			14			
FOR	CM-MWD4-M-AWT	-10072	Lat	Slokan	1246	1			84		1	3						2 2				110			1	MS	
7 8 9	GW-MW04-DUP-AWI GW-MW04-M-AWI GW-MW04-MD-AWI	-10072	Pwr	G 10/07/20	1345			_	34	_		3	t				3 2	_	-	1						150	)
9																Ī						ij					
10	- W 30																										
11			H					Н					+	H	4	-	-	+		4	H	4					
12	ADDITIONAL COMMENTS		RELING	UISHED BY /	AFFILIATIO	N	DATE	372	TIL	AE	(a)		AC	CEPTE	D BY	AFF	LIATK	ON	200		DATE	9 23	TIME		SAMPLE	CONDITION	45
	Level Idata package	GIN	De	esau	( Pan	Noil	10/08	120	ilor	34	K	W	iel	W	(de	21	R	20	e	10	1/8/2	16	,54			T	
_	, 0.0			0				1	-	/				V		(	_				17						
		-	_					+	-		-	-	-	-	-					+		+				-	
					SAMPLE	R NAME	AND SIG	NATU	RE	16.6		Ħ.	3			00	3				2.3	30	23.	20	ro o		
					- 200		of SAMP		lik M	100	I'C	20	000	25	1	1	DA	TES	igned	-10	0			TEMP In C	Received (Icel)	Custody Sealed Gooler	Samples IntactC (Y/N)

Post Closure Five Year Report; Armstrong World Industries Operable Unit -1 (WWTP Landfill) Macon, Georgia

# **APPENDIX C.3**

**LABORATORY ANALYTICAL REPORTS** 





October 15, 2020

Keith Cole Ramboll Environ US Corporation 1600 Parkwood Circle Suite 310 Atlanta, GA 30339

RE: Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

#### Dear Keith Cole:

Enclosed are the analytical results for sample(s) received by the laboratory on October 08, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services Charlotte
- Pace Analytical Services Peachtree Corners, GA

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Nikita Kuruganty nikita.kuruganty@pacelabs.com (770)734-4200 Project Manager

un.

Enclosures

cc: Robert Patchett, Ramboll Environ





#### **CERTIFICATIONS**

Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

**Pace Analytical Services Charlotte** 

9800 Kincey Ave. Ste 100, Huntersville, NC 28078 Louisiana/NELAP Certification # LA170028 North Carolina Drinking Water Certification #: 37706 North Carolina Field Services Certification #: 5342

North Carolina Wastewater Certification #: 12

**Pace Analytical Services Peachtree Corners** 

110 Technology Pkwy, Peachtree Corners, GA 30092 Florida DOH Certification #: E87315 Georgia DW Inorganics Certification #: 812 Georgia DW Microbiology Certification #: 812 South Carolina Certification #: 99006001 Florida/NELAP Certification #: E87627 Kentucky UST Certification #: 84 Virginia/VELAP Certification #: 460221

North Carolina Certification #: 381 South Carolina Certification #: 98011001 Virginia Certification #: 460204



#### **SAMPLE SUMMARY**

Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92499650001	GW-MN05D-AWI-100620	Water	10/06/20 18:00	10/08/20 16:54
92499650002	GW-MN05-AWI-100720	Water	10/07/20 11:10	10/08/20 16:54
92499650003	GW-MN05-F-AWI-100720	Water	10/07/20 11:10	10/08/20 16:54
92499650004	GW-MN04-AWI-100720 MS/MSD	Water	10/07/20 13:45	10/08/20 16:54
92499650005	GW-MN04-DUP-AWI-100720	Water	10/07/20 13:45	10/08/20 16:54
92499650006	TRIP BLANK	Water	10/06/20 00:00	10/08/20 16:54



#### **SAMPLE ANALYTE COUNT**

Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92499650001	GW-MN05D-AWI-100620	EPA 8082A	SEM	8	PASI-C
		EPA 6010D	KH	7	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 8270E	PKS	74	PASI-C
		EPA 8260D	SAS	63	PASI-C
92499650002	GW-MN05-AWI-100720	EPA 8082A	SEM	8	PASI-C
		EPA 6010D	KH	7	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 8270E	PKS	74	PASI-C
		EPA 8260D	SAS	63	PASI-C
92499650003	GW-MN05-F-AWI-100720	EPA 8082A	SEM	8	PASI-C
		EPA 6010D	KH	7	PASI-GA
		EPA 7470A	VB	1	PASI-GA
92499650004	GW-MN04-AWI-100720 MS/MSD	EPA 8082A	SEM	8	PASI-C
		EPA 6010D	KH	7	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 8270E	PKS	74	PASI-C
		EPA 8260D	SAS	63	PASI-C
92499650005	GW-MN04-DUP-AWI-100720	EPA 8082A	SEM	8	PASI-C
		EPA 6010D	KH	7	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 8270E	PKS	74	PASI-C
		EPA 8260D	SAS	63	PASI-C
92499650006	TRIP BLANK	EPA 8260D	PM1	63	PASI-C

PASI-C = Pace Analytical Services - Charlotte

PASI-GA = Pace Analytical Services - Peachtree Corners, GA



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

Sample: GW-MN05D-AWI-100620	Lab ID: 9249	99650001	Collected: 10/06/2	0 18:00	Received: 10	/08/20 16:54	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
082 GCS PCB RVE	Analytical Meth	od: EPA 80	082A Preparation Me	thod: EF	A 3510C			
	Pace Analytica							
PCB-1016 (Aroclor 1016)	ND	ug/L	0.50	1	10/13/20 08:18	10/15/20 01:32	2 12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.50	1	10/13/20 08:18	10/15/20 01:32	2 11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.50	1	10/13/20 08:18	10/15/20 01:32	2 11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.50	1	10/13/20 08:18	10/15/20 01:32	2 53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/L	0.50	1	10/13/20 08:18	10/15/20 01:32	2 12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/L	0.50	1	10/13/20 08:18	10/15/20 01:32	2 11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.50		10/13/20 08:18			
Surrogates		3						
ecachlorobiphenyl (S)	23	%	10-181	1	10/13/20 08:18	10/15/20 01:32	2 2051-24-3	
010D ATL ICP	Analytical Meth	od: EPA 60	010D Preparation Me	thod: EF	PA 3010A			
	-		Peachtree Corners,					
rsenic	ND	ug/L	30.0	1	10/09/20 11:20	10/09/20 18:40	7440-38-2	
Barium	ND	ug/L	10.0	1	10/09/20 11:20	10/09/20 18:40	7440-39-3	
Cadmium	ND	ug/L	10.0	1	10/09/20 11:20	10/09/20 18:40	7440-43-9	
Chromium	ND	ug/L	10.0	1	10/09/20 11:20	10/09/20 18:40	7440-47-3	
ead	ND	ug/L	15.0		10/09/20 11:20			
selenium	ND	ug/L	40.0		10/09/20 11:20			
ilver	ND	ug/L	10.0		10/09/20 11:20			
7470 Mercury	Analytical Meth	od: EPA 74	170A Preparation Me	thod: EF	A 7470A			
•			Peachtree Corners,					
Mercury	ND	ug/L	0.20	1	10/12/20 14:30	10/13/20 11:20	7439-97-6	
3270E RVE	Analytical Meth	od: EPA 82	270E Preparation Me	thod: EF	PA 3510C			
	Pace Analytica		•					
cenaphthene	ND	ug/L	10.0	1	10/12/20 08:42	10/13/20 12:47	l 83-32-9	
•	ND ND	-	10.0 10.0		10/12/20 08:42 10/12/20 08:42			
cenaphthylene		ug/L				10/13/20 12:4	208-96-8	
cenaphthylene niline	ND ND	ug/L ug/L	10.0 10.0	1 1	10/12/20 08:42 10/12/20 08:42	10/13/20 12:4° 10/13/20 12:4°	208-96-8 62-53-3	
cenaphthylene niline nthracene	ND ND ND	ug/L ug/L ug/L	10.0 10.0 10.0	1 1 1	10/12/20 08:42 10/12/20 08:42 10/12/20 08:42	10/13/20 12:4° 10/13/20 12:4° 10/13/20 12:4°	208-96-8 62-53-3 120-12-7	
cenaphthylene niline nthracene enzo(a)anthracene	ND ND ND ND	ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0	1 1 1 1	10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42	10/13/20 12:4 <sup>-</sup> 10/13/20 12:4 <sup>-</sup> 10/13/20 12:4 <sup>-</sup> 10/13/20 12:4 <sup>-</sup>	208-96-8 62-53-3 1 120-12-7 1 56-55-3	
cenaphthylene niline nthracene enzo(a)anthracene enzo(a)pyrene	ND ND ND ND ND	ug/L ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0 10.0	1 1 1 1	10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42	10/13/20 12:4 <sup>-</sup> 10/13/20 12:4 <sup>-</sup> 10/13/20 12:4 <sup>-</sup> 10/13/20 12:4 <sup>-</sup> 10/13/20 12:4 <sup>-</sup>	208-96-8 62-53-3 120-12-7 56-55-3 50-32-8	
acenaphthylene uniline unthracene denzo(a)anthracene denzo(a)pyrene denzo(b)fluoranthene	ND ND ND ND ND	ug/L ug/L ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0 10.0 10.0	1 1 1 1 1	10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42	10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4'	208-96-8 62-53-3 120-12-7 56-55-3 50-32-8 205-99-2	
acenaphthylene sniline snthracene senzo(a)anthracene senzo(a)pyrene senzo(b)fluoranthene senzo(g,h,i)perylene	ND ND ND ND ND ND	ug/L ug/L ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0 10.0 10.0	1 1 1 1 1 1	10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42	10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4'	208-96-8 62-53-3 120-12-7 56-55-3 50-32-8 205-99-2 191-24-2	
acenaphthylene aniline anthracene denzo(a)anthracene denzo(a)pyrene denzo(b)fluoranthene denzo(g,h,i)perylene denzo(k)fluoranthene	ND ND ND ND ND ND ND	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0 10.0 10.0 10.0	1 1 1 1 1 1 1	10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42	10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4'	208-96-8 62-53-3 120-12-7 56-55-3 50-32-8 205-99-2 1191-24-2 207-08-9	
acenaphthylene aniline anthracene denzo(a)anthracene denzo(a)pyrene denzo(b)fluoranthene denzo(g,h,i)perylene denzo(k)fluoranthene denzo(k)fluoranthene denzoic Acid	ND ND ND ND ND ND ND	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0 10.0 10.0 10.0 50.0	1 1 1 1 1 1 1 1	10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42	10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4'	208-96-8 1 62-53-3 1 120-12-7 1 56-55-3 1 50-32-8 1 205-99-2 1 191-24-2 1 207-08-9 1 65-85-0	
cenaphthylene niline nthracene enzo(a)anthracene enzo(a)pyrene enzo(b)fluoranthene enzo(g,h,i)perylene enzo(k)fluoranthene enzoc Acid enzyl alcohol	ND N	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0 10.0 10.0 10.0 50.0	1 1 1 1 1 1 1 1 1	10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42 10/12/20 08:42	10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4'	208-96-8 1 62-53-3 1 120-12-7 1 56-55-3 1 50-32-8 1 205-99-2 1 191-24-2 1 207-08-9 1 65-85-0 1 100-51-6	
acenaphthylene aniline anthracene aenzo(a)anthracene aenzo(a)pyrene aenzo(b)fluoranthene aenzo(g,h,i)perylene aenzo(k)fluoranthene aenzoic Acid aenzyl alcohol -Bromophenylphenyl ether	ND N	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0 10.0 10.0 10.0 50.0 20.0	1 1 1 1 1 1 1 1 1	10/12/20 08:42 10/12/20 08:42	10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4'	208-96-8 1 62-53-3 1 120-12-7 1 56-55-3 1 50-32-8 1 205-99-2 1 191-24-2 1 207-08-9 1 65-85-0 1 100-51-6 1 101-55-3	
acenaphthylene aniline anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Benzoic Acid Benzyl alcohol Bromophenylphenyl ether Butylbenzylphthalate	ND N	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0 10.0 10.0 10.0 50.0 20.0 10.0	1 1 1 1 1 1 1 1 1 1	10/12/20 08:42 10/12/20 08:42	10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4'	208-96-8 62-53-3 120-12-7 56-55-3 50-32-8 205-99-2 191-24-2 207-08-9 65-85-0 100-51-6 101-55-3 85-68-7	
acenaphthylene aniline anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Benzoic Acid Benzyl alcohol -Bromophenylphenyl ether Butylbenzylphthalate -Chloro-3-methylphenol	ND N	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0 10.0 10.0 10.0 50.0 20.0 10.0 10.0	1 1 1 1 1 1 1 1 1 1 1	10/12/20 08:42 10/12/20 08:42	10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4'	208-96-8 62-53-3 120-12-7 56-55-3 50-32-8 205-99-2 191-24-2 207-08-9 65-85-0 100-51-6 101-55-3 85-68-7 59-50-7	
acenaphthylene aniline anthracene Benzo(a)anthracene Benzo(b)fluoranthene Benzo(b,fluoranthene Benzo(k)fluoranthene Benzo(k)fluoranthene Benzoic Acid Benzyl alcohol -Bromophenylphenyl ether Butylbenzylphthalate -Chloro-3-methylphenol -Chloroaniline	ND N	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0 10.0 10.0 10.0 50.0 20.0 10.0 10.0 10.0	1 1 1 1 1 1 1 1 1 1 1 1	10/12/20 08:42 10/12/20 08:42	10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4'	208-96-8 62-53-3 120-12-7 56-55-3 50-32-8 205-99-2 191-24-2 207-08-9 65-85-0 100-51-6 101-55-3 85-68-7 59-50-7	
Accenaphthylene Aniline Anthracene Benzo(a)anthracene Benzo(b)fluoranthene Benzo(b,fluoranthene Benzo(k)fluoranthene Benzoic Acid Benzyl alcohol -Bromophenylphenyl ether Butylbenzylphthalate -Chloro-3-methylphenol -Chloroaniline iis(2-Chloroethoxy)methane	ND N	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0 10.0 10.0 10.0 50.0 20.0 10.0 10.0 20.0	1 1 1 1 1 1 1 1 1 1 1 1 1	10/12/20 08:42 10/12/20 08:42	10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4'	208-96-8   62-53-3   120-12-7   56-55-3   50-32-8   205-99-2   191-24-2   207-08-9   65-85-0   100-51-6   101-55-3   85-68-7   59-50-7   106-47-8   111-91-1	
Acenaphthylene Anthracene Benzo(a)anthracene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Benzoic Acid Benzyl alcohol d-Bromophenylphenyl ether Butylbenzylphthalate d-Chloro-3-methylphenol d-Chloroethoxy)methane bis(2-Chloroethyl) ether	ND N	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	1 1 1 1 1 1 1 1 1 1 1 1 1 1	10/12/20 08:42 10/12/20 08:42	10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4'	208-96-8   62-53-3   120-12-7   56-55-3   50-32-8   205-99-2   191-24-2   207-08-9   65-85-0   100-51-6   101-55-3   85-68-7   59-50-7   106-47-8   111-91-1	
Acenaphthene Acenaphthylene Anthracene Benzo(a)anthracene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Benzoic Acid Benzol alcohol Benzyl alcohol	ND N	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0 10.0 10.0 10.0 50.0 20.0 10.0 10.0 20.0	1 1 1 1 1 1 1 1 1 1 1 1 1 1	10/12/20 08:42 10/12/20 08:42	10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4' 10/13/20 12:4'	208-96-8   62-53-3   120-12-7   56-55-3   50-32-8   205-99-2   191-24-2   207-08-9   65-85-0   100-51-6   101-55-3   85-68-7   59-50-7   106-47-8   111-91-1   111-44-4	

#### **REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

Sample: GW-MN05D-AWI-100620	Lab ID:	92499650001	Collected:	10/06/2	0 18:00	Received: 1	0/08/20 16:54	Matrix: Water	
Parameters	Results	Units	Repor	t Limit	DF	Prepared	Analyzed	CAS No.	Qua
3270E RVE	Analytical	Method: EPA 82	270E Prepar	ation Me	thod: EF	PA 3510C			
	Pace Anal	ytical Services -	- Charlotte						
4-Chlorophenylphenyl ether	NE	O ug/L		10.0	1	10/12/20 08:42	2 10/13/20 12:4	1 7005-72-3	
Chrysene	NE	•		10.0	1		2 10/13/20 12:4		
Dibenz(a,h)anthracene	NE	ū		10.0	1		2 10/13/20 12:4		
Dibenzofuran	NI	•		10.0	1		2 10/13/20 12:4		
,2-Dichlorobenzene	NE	_		10.0	1		2 10/13/20 12:4		
,3-Dichlorobenzene	N	ū		10.0	1		2 10/13/20 12:4		
,4-Dichlorobenzene	NE	•		10.0	1		2 10/13/20 12:4		
,3'-Dichlorobenzidine	NE	•		20.0	1		2 10/13/20 12:4		
,4-Dichlorophenol	NE	-		10.0	1		2 10/13/20 12:4		
Diethylphthalate	NE	0		10.0	1		2 10/13/20 12:4		
,4-Dimethylphenol	N	ū		10.0	1		2 10/13/20 12:4		
Dimethylphthalate	NE	•		10.0	1		2 10/13/20 12:4		
i-n-butylphthalate	N	ū		10.0	1		2 10/13/20 12:4		
,6-Dinitro-2-methylphenol	NE	•		20.0	1		2 10/13/20 12:4		
,4-Dinitrophenol	NE	0		50.0	1		2 10/13/20 12:4		
,4-Dinitrotoluene	NI	•		10.0	1		2 10/13/20 12:4		
,6-Dinitrotoluene	NE	9		10.0	1		2 10/13/20 12:4		
i-n-octylphthalate	N	ū		10.0	1		2 10/13/20 12:4		
is(2-Ethylhexyl)phthalate	NI	•		6.0	1		2 10/13/20 12:4		
luoranthene	N			10.0	1		2 10/13/20 12:4		
luorene	NI	•		10.0	1		2 10/13/20 12:4		
lexachloro-1,3-butadiene	NE	9		10.0	1		2 10/13/20 12:4		
lexachlorobenzene	NE	ū		10.0	1		2 10/13/20 12:4		
lexachlorocyclopentadiene	N	•		10.0	1		2 10/13/20 12:4		
lexachloroethane	NE	_		10.0	1		2 10/13/20 12:4		
ndeno(1,2,3-cd)pyrene	NE	ū		10.0	1		2 10/13/20 12:4		
sophorone	NE	•		10.0	1		2 10/13/20 12:4		
-Methylnaphthalene	NE	ū		10.0	1		2 10/13/20 12:4		
-Methylnaphthalene	NE	•		10.0	1		2 10/13/20 12:4		
-Methylphenol(o-Cresol)	N			10.0	1		2 10/13/20 12:4		
&4-Methylphenol(m&p Cresol)	NE	ū		10.0	1	10/12/20 08:42	2 10/13/20 12:4	1 15831-10-4	
laphthalene	NE	•		10.0	1		2 10/13/20 12:4		
-Nitroaniline	NE	ū		20.0	1		2 10/13/20 12:4		
-Nitroaniline	NE	•		20.0	1		2 10/13/20 12:4		
-Nitroaniline	NE	0		20.0	1		2 10/13/20 12:4		
litrobenzene	NE	ū		10.0	1		2 10/13/20 12:4		
-Nitrophenol	NE	•		10.0	1		2 10/13/20 12:4		
-Nitrophenol	NE	ū		50.0	1		2 10/13/20 12:4		
-Nitrosodimethylamine	N	ū		10.0	1		2 10/13/20 12:4		v1
-Nitroso-di-n-propylamine	N	ū		10.0	1		2 10/13/20 12:4		
l-Nitrosodiphenylamine	N	ū		10.0	1		2 10/13/20 12:4		
,2'-Oxybis(1-chloropropane)	NE	•		10.0	1		2 10/13/20 12:4		
entachlorophenol	NE	ū		20.0	1		2 10/13/20 12:4		
Phenanthrene	NI	•		10.0	1		2 10/13/20 12:4		
Phenol	N	_		10.0	1		2 10/13/20 12:4		
Pyrene	NE	•		10.0	1		2 10/13/20 12:4		



Project: AWI Facility Proj#169001899

Date: 10/15/2020 10:48 AM

Sample: GW-MN05D-AWI-100620	Lab ID: 924	99650001	Collected: 10/06/2	20 18:00	Received: 10	0/08/20 16:54	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
3270E RVE	Analytical Met	hod: EPA 82	270E Preparation Me	thod: EF	PA 3510C			
	Pace Analytica							
1,2,4-Trichlorobenzene	ND	ug/L	10.0	1	10/12/20 08:42	10/13/20 12:4	1 120-82-1	
2,4,5-Trichlorophenol	ND	ug/L	10.0	1	10/12/20 08:42	10/13/20 12:41	1 95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	10.0	1	10/12/20 08:42	10/13/20 12:4	1 88-06-2	
Surrogates		ŭ						
Nitrobenzene-d5 (S)	51	%	10-144	1	10/12/20 08:42	10/13/20 12:4	1 4165-60-0	
2-Fluorobiphenyl (S)	50	%	10-130	1	10/12/20 08:42	10/13/20 12:41	1 321-60-8	
Terphenyl-d14 (S)	102	%	34-163	1	10/12/20 08:42	10/13/20 12:41	1 1718-51-0	
Phenol-d6 (S)	27	%	10-130	1	10/12/20 08:42	10/13/20 12:41	1 13127-88-3	
2-Fluorophenol (S)	34	%	10-130	1		10/13/20 12:4		
2,4,6-Tribromophenol (S)	61	%	10-144	1		10/13/20 12:4		
	Analytical Mot	had. FDA 01	260D					
3260D MSV Low Level Landfill	Analytical Met							
	Pace Analytica							
Acetone	ND	ug/L	25.0	1		10/13/20 16:22		
Benzene	ND	ug/L	1.0	1		10/13/20 16:22		
Bromobenzene	ND	ug/L	1.0	1		10/13/20 16:22	2 108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		10/13/20 16:22	2 74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		10/13/20 16:22	2 75-27-4	
Bromoform	ND	ug/L	1.0	1		10/13/20 16:22	2 75-25-2	
Bromomethane	ND	ug/L	2.0	1		10/13/20 16:22	2 74-83-9	
P-Butanone (MEK)	ND	ug/L	5.0	1		10/13/20 16:22	2 78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		10/13/20 16:22	2 56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		10/13/20 16:22	2 108-90-7	
Chloroethane	ND	ug/L	1.0	1		10/13/20 16:22	2 75-00-3	
Chloroform	ND	ug/L	5.0	1		10/13/20 16:22	2 67-66-3	
Chloromethane	ND	ug/L	1.0	1		10/13/20 16:22	2 74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		10/13/20 16:22		
I-Chlorotoluene	ND	ug/L	1.0	1		10/13/20 16:22	2 106-43-4	
,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		10/13/20 16:22		
Dibromochloromethane	ND	ug/L	1.0	1		10/13/20 16:22		
I,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		10/13/20 16:22	_	
Dibromomethane	ND	ug/L	1.0	1		10/13/20 16:22		
,2-Dichlorobenzene	ND ND	ug/L ug/L	1.0	1		10/13/20 16:22		
,3-Dichlorobenzene	ND ND	•	1.0	1		10/13/20 16:22		
•		ug/L		•				
,4-Dichlorobenzene	ND	ug/L	1.0	1		10/13/20 16:22		
Dichlorodifluoromethane	ND	ug/L	1.0	1		10/13/20 16:22		
,1-Dichloroethane	ND	ug/L	1.0	1		10/13/20 16:22		
,2-Dichloroethane	ND	ug/L	1.0	1		10/13/20 16:22		
,1-Dichloroethene	ND	ug/L	1.0	1		10/13/20 16:22		
is-1,2-Dichloroethene	ND	ug/L	1.0	1		10/13/20 16:22		
rans-1,2-Dichloroethene	ND	ug/L	1.0	1		10/13/20 16:22	2 156-60-5	
,2-Dichloropropane	ND	ug/L	1.0	1		10/13/20 16:22	2 78-87-5	
,3-Dichloropropane	ND	ug/L	1.0	1		10/13/20 16:22	2 142-28-9	
2,2-Dichloropropane	ND	ug/L	1.0	1		10/13/20 16:22	2 594-20-7	
I,1-Dichloropropene	ND	ug/L	1.0	1		10/13/20 16:22	2 563-58-6	
is-1,3-Dichloropropene	ND	ug/L	1.0	1		10/13/20 16:22		



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

Sample: GW-MN05D-AWI-100620	Lab ID: 924	99650001	Collected: 10/06/2	20 18:00	Received:	10/08/20 16:54 I	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
8260D MSV Low Level Landfill	Analytical Met	nod: EPA 82	260D					
	Pace Analytica	al Services -	- Charlotte					
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		10/13/20 16:22	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		10/13/20 16:22	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		10/13/20 16:22	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		10/13/20 16:22	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		10/13/20 16:22	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		10/13/20 16:22	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		10/13/20 16:22	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		10/13/20 16:22	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		10/13/20 16:22	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		10/13/20 16:22	91-20-3	
Styrene	ND	ug/L	1.0	1		10/13/20 16:22	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		10/13/20 16:22	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		10/13/20 16:22	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		10/13/20 16:22	127-18-4	
Toluene	ND	ug/L	1.0	1		10/13/20 16:22	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		10/13/20 16:22	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		10/13/20 16:22	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		10/13/20 16:22	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		10/13/20 16:22	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		10/13/20 16:22	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		10/13/20 16:22	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		10/13/20 16:22	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		10/13/20 16:22	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		10/13/20 16:22	75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		10/13/20 16:22	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		10/13/20 16:22	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		10/13/20 16:22	95-47-6	
Surrogates		-						
4-Bromofluorobenzene (S)	98	%	70-130	1		10/13/20 16:22	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130	1		10/13/20 16:22	17060-07-0	
Toluene-d8 (S)	99	%	70-130	1		10/13/20 16:22	2037-26-5	



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

Sample: GW-MN05-AWI-100720	Lab ID: 9249	9650002	Collected: 10/07/2	0 11:10	Received: 10	0/08/20 16:54	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
082 GCS PCB RVE	Analytical Meth	od: EPA 80	82A Preparation Me	thod: EF	PA 3510C			
	Pace Analytical	Services -	Charlotte					
PCB-1016 (Aroclor 1016)	ND	ug/L	0.50	1	10/13/20 08:18	10/15/20 01:4	1 12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.50	1	10/13/20 08:18	10/15/20 01:44	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.50	1	10/13/20 08:18	10/15/20 01:44	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.50	1	10/13/20 08:18	10/15/20 01:44	1 53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/L	0.50	1	10/13/20 08:18	10/15/20 01:44	1 12672-29-6	
CB-1254 (Aroclor 1254)	ND	ug/L	0.50	1	10/13/20 08:18	10/15/20 01:4	11097-69-1	
CB-1260 (Aroclor 1260)	ND	ug/L	0.50	1	10/13/20 08:18			
Surrogates		3						
ecachlorobiphenyl (S)	38	%	10-181	1	10/13/20 08:18	10/15/20 01:4	1 2051-24-3	
010D ATL ICP	Analytical Meth	od: EPA 60	10D Preparation Me	thod: EF	PA 3010A			
	•		Peachtree Corners,					
rsenic	ND	ug/L	30.0	1	10/09/20 11:20	10/12/20 20:0	7440-38-2	
arium	86.8	ug/L	10.0	1	10/09/20 11:20	10/09/20 18:4	5 7440-39-3	
admium	ND	ug/L	10.0	1	10/09/20 11:20			
chromium	ND	ug/L	10.0	1	10/09/20 11:20			
ead	ND	ug/L	15.0	1	10/09/20 11:20			
elenium	ND	ug/L	40.0	1	10/09/20 11:20			
ilver	ND	ug/L	10.0	1	10/09/20 11:20			
470 Mercury	Analytical Meth	od: EPA 74	70A Preparation Me	thod: EF	A 7470A			
,			Peachtree Corners,					
Mercury	ND	ug/L	0.20	1	10/12/20 14:30	10/13/20 11:22	2 7439-97-6	
270E RVE	Analytical Meth	od: EPA 82	70E Preparation Me	thod: EF	PA 3510C			
	•		•					
	Pace Analytica	Services -						
cenaphthene	ND		10.0	1	10/12/20 20:43	10/14/20 12:39	9 83-32-9	
•	ND	ug/L	10.0					
cenaphthylene	ND ND	ug/L ug/L	10.0 10.0	1	10/12/20 20:43	10/14/20 12:39	9 208-96-8	
cenaphthylene niline	ND ND ND	ug/L ug/L ug/L	10.0 10.0 10.0	1 1	10/12/20 20:43 10/12/20 20:43	10/14/20 12:39 10/14/20 12:39	9 208-96-8 9 62-53-3	
cenaphthylene niline nthracene	ND ND ND ND	ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0	1 1 1	10/12/20 20:43 10/12/20 20:43 10/12/20 20:43	10/14/20 12:39 10/14/20 12:39 10/14/20 12:39	9 208-96-8 9 62-53-3 9 120-12-7	
cenaphthylene niline nthracene enzo(a)anthracene	ND ND ND ND	ug/L ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0 10.0	1 1 1 1	10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43	10/14/20 12:39 10/14/20 12:39 10/14/20 12:39 10/14/20 12:39	9 208-96-8 9 62-53-3 9 120-12-7 9 56-55-3	
cenaphthylene niline nthracene enzo(a)anthracene enzo(a)pyrene	ND ND ND ND ND	ug/L ug/L ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0 10.0 10.0	1 1 1 1	10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43	10/14/20 12:39 10/14/20 12:39 10/14/20 12:39 10/14/20 12:39 10/14/20 12:39	9 208-96-8 9 62-53-3 9 120-12-7 9 56-55-3 9 50-32-8	
cenaphthylene niline nthracene enzo(a)anthracene enzo(a)pyrene enzo(b)fluoranthene	ND ND ND ND ND ND	ug/L ug/L ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0 10.0 10.0	1 1 1 1 1	10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43	10/14/20 12:39 10/14/20 12:39 10/14/20 12:39 10/14/20 12:39 10/14/20 12:39 10/14/20 12:39	9 208-96-8 9 62-53-3 9 120-12-7 9 56-55-3 9 50-32-8 9 205-99-2	
cenaphthylene niline nthracene enzo(a)anthracene enzo(a)pyrene enzo(b)fluoranthene enzo(g,h,i)perylene	ND ND ND ND ND ND ND	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0 10.0 10.0 10.0	1 1 1 1 1 1	10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43	10/14/20 12:30 10/14/20 12:30 10/14/20 12:30 10/14/20 12:30 10/14/20 12:30 10/14/20 12:30 10/14/20 12:30	9 208-96-8 9 62-53-3 9 120-12-7 9 56-55-3 9 50-32-8 9 205-99-2 9 191-24-2	
cenaphthylene niline nthracene enzo(a)anthracene enzo(a)pyrene enzo(b)fluoranthene enzo(g,h,i)perylene enzo(k)fluoranthene	ND ND ND ND ND ND ND ND	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	1 1 1 1 1 1 1	10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43	10/14/20 12:30 10/14/20 12:30 10/14/20 12:30 10/14/20 12:30 10/14/20 12:30 10/14/20 12:30 10/14/20 12:30 10/14/20 12:30	9 208-96-8 9 62-53-3 9 120-12-7 9 56-55-3 9 50-32-8 9 205-99-2 9 191-24-2 9 207-08-9	12
cenaphthylene niline nthracene enzo(a)anthracene enzo(a)pyrene enzo(b)fluoranthene enzo(g,h,i)perylene enzo(k)fluoranthene enzoc Acid	ND ND ND ND ND ND ND ND ND	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	1 1 1 1 1 1 1	10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43	10/14/20 12:30 10/14/20 12:30 10/14/20 12:30 10/14/20 12:30 10/14/20 12:30 10/14/20 12:30 10/14/20 12:30 10/14/20 12:30 10/14/20 12:30	9 208-96-8 9 62-53-3 9 120-12-7 9 56-55-3 9 50-32-8 9 205-99-2 9 191-24-2 9 207-08-9 9 65-85-0	L2
cenaphthylene niline nthracene enzo(a)anthracene enzo(a)pyrene enzo(b)fluoranthene enzo(g,h,i)perylene enzo(k)fluoranthene enzoic Acid enzyl alcohol	ND ND ND ND ND ND ND ND ND ND	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	1 1 1 1 1 1 1 1	10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43	10/14/20 12:30 10/14/20 12:30 10/14/20 12:30 10/14/20 12:30 10/14/20 12:30 10/14/20 12:30 10/14/20 12:30 10/14/20 12:30 10/14/20 12:30 10/14/20 12:30	9 208-96-8 9 62-53-3 9 120-12-7 9 56-55-3 9 50-32-8 9 205-99-2 9 191-24-2 9 207-08-9 9 65-85-0 9 100-51-6	L2
cenaphthylene niline nthracene enzo(a)anthracene enzo(a)pyrene enzo(b)fluoranthene enzo(g,h,i)perylene enzo(k)fluoranthene enzoic Acid enzyl alcohol -Bromophenylphenyl ether	ND N	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	1 1 1 1 1 1 1 1 1	10/12/20 20:43 10/12/20 20:43	10/14/20 12:30 10/14/20 12:30	9 208-96-8 9 62-53-3 9 120-12-7 9 56-55-3 9 50-32-8 9 205-99-2 9 191-24-2 9 207-08-9 9 65-85-0 9 100-51-6 9 101-55-3	L2
cenaphthylene niline nthracene enzo(a)anthracene enzo(a)pyrene enzo(b)fluoranthene enzo(g,h,i)perylene enzo(k)fluoranthene enzoic Acid enzyl alcohol -Bromophenylphenyl ether utylbenzylphthalate	ND N	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	1 1 1 1 1 1 1 1 1 1	10/12/20 20:43 10/12/20 20:43	10/14/20 12:33 10/14/20 12:33	9 208-96-8 9 62-53-3 9 120-12-7 9 56-55-3 9 50-32-8 9 205-99-2 9 191-24-2 9 207-08-9 9 65-85-0 9 100-51-6 9 101-55-3 9 85-68-7	L2
cenaphthylene niline nthracene enzo(a)anthracene enzo(a)pyrene enzo(b)fluoranthene enzo(g,h,i)perylene enzo(k)fluoranthene enzoic Acid enzyl alcohol -Bromophenylphenyl ether utylbenzylphthalate -Chloro-3-methylphenol	ND N	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	1 1 1 1 1 1 1 1 1 1	10/12/20 20:43 10/12/20 20:43	10/14/20 12:33 10/14/20 12:33	9 208-96-8 9 62-53-3 9 120-12-7 9 56-55-3 9 50-32-8 9 205-99-2 9 191-24-2 9 207-08-9 9 65-85-0 9 100-51-6 9 101-55-3 9 85-68-7 9 59-50-7	L2
cenaphthylene niline nthracene enzo(a)anthracene enzo(a)pyrene enzo(b)fluoranthene enzo(g,h,i)perylene enzo(k)fluoranthene enzoic Acid enzyl alcohol -Bromophenylphenyl ether utylbenzylphthalate -Chloro-3-methylphenol -Chloroaniline	ND N	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	1 1 1 1 1 1 1 1 1 1 1	10/12/20 20:43 10/12/20 20:43	10/14/20 12:33 10/14/20 12:33	9 208-96-8 9 62-53-3 9 120-12-7 9 56-55-3 9 50-32-8 9 205-99-2 9 191-24-2 9 207-08-9 9 65-85-0 9 100-51-6 9 101-55-3 9 85-68-7 9 59-50-7 9 106-47-8	L2
cenaphthylene niline nthracene enzo(a)anthracene enzo(a)pyrene enzo(b)fluoranthene enzo(g,h,i)perylene enzo(k)fluoranthene enzoic Acid enzyl alcohol -Bromophenylphenyl ether tutylbenzylphthalate -Chloro-3-methylphenol -Chloroaniline is(2-Chloroethoxy)methane	ND N	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	1 1 1 1 1 1 1 1 1 1 1 1	10/12/20 20:43 10/12/20 20:43	10/14/20 12:33 10/14/20 12:33	9 208-96-8 9 62-53-3 9 120-12-7 9 56-55-3 9 50-32-8 9 205-99-2 9 191-24-2 9 207-08-9 9 65-85-0 9 100-51-6 9 101-55-3 9 85-68-7 9 59-50-7 9 106-47-8 9 111-91-1	L2
Accenaphthylene Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Benzoic Acid Benzyl alcohol Benzyl alcohol Benzyl phthalate Benzylphthalate	ND N	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	1 1 1 1 1 1 1 1 1 1 1	10/12/20 20:43 10/12/20 20:43	10/14/20 12:33 10/14/20 12:33	9 208-96-8 9 62-53-3 9 120-12-7 9 56-55-3 9 50-32-8 9 205-99-2 9 191-24-2 9 207-08-9 9 65-85-0 9 100-51-6 9 101-55-3 9 85-68-7 9 59-50-7 9 106-47-8 9 111-91-1	L2
Acenaphthene Acenaphthylene Aniline Anthracene Benzo(a)anthracene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Benzoic Acid Benzyl alcohol I-Bromophenylphenyl ether Butylbenzylphthalate I-Chloro-3-methylphenol I-Chloroaniline Dis(2-Chloroethoxy)methane Dis(2-Chloroethyl) ether I-Chloronaphthalene	ND N	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0	1 1 1 1 1 1 1 1 1 1 1 1	10/12/20 20:43 10/12/20 20:43	10/14/20 12:33 10/14/20 12:33	9 208-96-8 9 62-53-3 9 120-12-7 9 56-55-3 9 50-32-8 9 205-99-2 9 191-24-2 9 207-08-9 9 65-85-0 9 100-51-6 9 101-55-3 9 85-68-7 9 59-50-7 9 106-47-8 9 111-91-1	L2



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

Sample: GW-MN05-AWI-100720	Lab ID:	92499650002	Collected:	10/07/2	0 11:10	Received: 1	0/08/20 16:54	Matrix: Water	
Parameters	Results	Units	Repor	t Limit	DF	Prepared	Analyzed	CAS No.	Qua
270E RVE	Analytical	Method: EPA 82	270E Prepar	ation Me	thod: EF	PA 3510C			
	Pace Anal	lytical Services -	- Charlotte						
-Chlorophenylphenyl ether	NI	D ug/L		10.0	1	10/12/20 20:43	3 10/14/20 12:39	9 7005-72-3	
Chrysene	NI	•		10.0	1		3 10/14/20 12:39		
Dibenz(a,h)anthracene	NI	ū		10.0	1		3 10/14/20 12:39		
Dibenzofuran	NI	•		10.0	1		3 10/14/20 12:39		
,2-Dichlorobenzene	NI	_		10.0	1		3 10/14/20 12:39		
,3-Dichlorobenzene	NI	ū		10.0	1		3 10/14/20 12:39		
,4-Dichlorobenzene	NI	•		10.0	1		3 10/14/20 12:39		
,3'-Dichlorobenzidine	NI	•		20.0	1		3 10/14/20 12:39		
t,4-Dichlorophenol	NI	-		10.0	1		3 10/14/20 12:39		
Diethylphthalate	NI	0		10.0	1		3 10/14/20 12:39		
t,4-Dimethylphenol	NI	ū		10.0	1		3 10/14/20 12:39		
Dimethylphthalate	NI	•		10.0	1		3 10/14/20 12:39		
Di-n-butylphthalate	NI	ū		10.0	1		3 10/14/20 12:39		
-,6-Dinitro-2-methylphenol	NI	•		20.0	1		3 10/14/20 12:39		
2,4-Dinitrophenol	NI	0		50.0	1		3 10/14/20 12:39		
2,4-Dinitrotoluene	NI	•		10.0	1		3 10/14/20 12:39		
,6-Dinitrotoluene	NI	9		10.0	1		3 10/14/20 12:39		
Di-n-octylphthalate	NI	•		10.0	1		3 10/14/20 12:39		
is(2-Ethylhexyl)phthalate	NI	•		6.0	1		3 10/14/20 12:39		
luoranthene	NI			10.0	1		3 10/14/20 12:39 3 10/14/20 12:39		
luorene	NI	•		10.0	1		3 10/14/20 12:39 3 10/14/20 12:39		
lexachloro-1,3-butadiene	NI	9		10.0	1		3 10/14/20 12:39		
lexachlorobenzene	NI	ū		10.0	1		3 10/14/20 12:39		
Hexachlorocyclopentadiene	NI	•		10.0	1		3 10/14/20 12:39		
lexachloroethane	NI	0		10.0	1		3 10/14/20 12:39		
ndeno(1,2,3-cd)pyrene	NI	0		10.0	1		3 10/14/20 12:39		
sophorone	NI	•		10.0	1		3 10/14/20 12:39		
-Methylnaphthalene	NI	Ū		10.0	1		3 10/14/20 12:39		
!-Methylnaphthalene	NI	•		10.0	1		3 10/14/20 12:39		
:-Methyliphenol(o-Cresol)	NI			10.0	1		3 10/14/20 12:39		
&4-Methylphenol(m&p Cresol)	NI	Ū		10.0	1		3 10/14/20 12:39		
laphthalene	NI	•		10.0	1		3 10/14/20 12:39		
-Nitroaniline	NI	Ū		20.0	1		3 10/14/20 12:39		
-Nitroaniline	NI	•		20.0	1		3 10/14/20 12:39		
-Nitroaniline	NI	0		20.0	1		3 10/14/20 12:39		
litrobenzene	NI	Ū		10.0	1		3 10/14/20 12:39 3 10/14/20 12:39		
!-Nitrophenol	NI	•		10.0	1		3 10/14/20 12:39 3 10/14/20 12:39		
-Nitrophenol	NI	Ū		50.0	1		3 10/14/20 12:39 3 10/14/20 12:39		
I-Nitrosodimethylamine	NI	Ū		10.0	1		3 10/14/20 12:39 3 10/14/20 12:39		
I-Nitrosodinetrylamine	NI	Ū		10.0	1		3 10/14/20 12:39 3 10/14/20 12:39		
I-Nitrosodiphenylamine	NI	Ū		10.0	1		3 10/14/20 12:39 3 10/14/20 12:39		
y-Nitrosodiphenylamine 1,2'-Oxybis(1-chloropropane)	NI NI	•		10.0	1		3 10/14/20 12:39 3 10/14/20 12:39		
Pentachlorophenol	NI NI	•		20.0	1		3 10/14/20 12:39 3 10/14/20 12:39		
•		•			1				
Phenanthrene	NI	0		10.0			3 10/14/20 12:39		
Phenol	NI	D ug/L		10.0	1	10/12/20 20:43	3 10/14/20 12:39	9 108-95-2	



Project: AWI Facility Proj#169001899

Date: 10/15/2020 10:48 AM

Sample: GW-MN05-AWI-100720	Lab ID: 924	99650002	Collected: 10/07/2	20 11:10	Received: 10	0/08/20 16:54	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
8270E RVE	Analytical Met	hod: EPA 82	270E Preparation Me	ethod: Ef	PA 3510C			
	Pace Analytica	al Services -	Charlotte					
1,2,4-Trichlorobenzene	ND	ug/L	10.0	1	10/12/20 20:43	10/14/20 12:39	9 120-82-1	
2,4,5-Trichlorophenol	ND	ug/L	10.0	1	10/12/20 20:43	10/14/20 12:39	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	10.0	1	10/12/20 20:43	10/14/20 12:39	9 88-06-2	
Surrogates		ŭ						
Nitrobenzene-d5 (S)	49	%	10-144	1	10/12/20 20:43	10/14/20 12:39	4165-60-0	
2-Fluorobiphenyl (S)	48	%	10-130	1	10/12/20 20:43	10/14/20 12:39	321-60-8	
Terphenyl-d14 (S)	61	%	34-163	1	10/12/20 20:43	10/14/20 12:39	9 1718-51-0	
Phenol-d6 (S)	26	%	10-130	1	10/12/20 20:43	10/14/20 12:39	13127-88-3	
2-Fluorophenol (S)	33	%	10-130	1		10/14/20 12:39		
2,4,6-Tribromophenol (S)	42	%	10-144	1		10/14/20 12:39		
2260D MSV Low Level Landfill	Analytical Metl	hod: EPA 81	2600					
2000 M3V LOW Level Landini	Pace Analytica							
Acetone	ND	ug/L	25.0	1		10/13/20 16:40	67644	
		•						
Benzene	ND	ug/L	1.0	1		10/13/20 16:40		
Bromobenzene	ND	ug/L	1.0	1		10/13/20 16:40		
Bromochloromethane	ND	ug/L	1.0	1		10/13/20 16:40		
Bromodichloromethane	ND	ug/L	1.0	1		10/13/20 16:40		
Bromoform	ND	ug/L	1.0	1		10/13/20 16:40		
Bromomethane	ND	ug/L	2.0	1		10/13/20 16:40		
2-Butanone (MEK)	ND	ug/L	5.0	1		10/13/20 16:40	78-93-3	
Carbon tetrachloride	ND	ug/L	1.0	1		10/13/20 16:40	) 56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		10/13/20 16:40	108-90-7	
Chloroethane	ND	ug/L	1.0	1		10/13/20 16:40	75-00-3	
Chloroform	ND	ug/L	5.0	1		10/13/20 16:40	67-66-3	
Chloromethane	ND	ug/L	1.0	1		10/13/20 16:40	74-87-3	
2-Chlorotoluene	ND	ug/L	1.0	1		10/13/20 16:40	95-49-8	
-Chlorotoluene	ND	ug/L	1.0	1		10/13/20 16:40	106-43-4	
,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		10/13/20 16:40	96-12-8	
Dibromochloromethane	ND	ug/L	1.0	1		10/13/20 16:40	) 124-48-1	
,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		10/13/20 16:40	106-93-4	
Dibromomethane	ND	ug/L	1.0	1		10/13/20 16:40		
,2-Dichlorobenzene	ND	ug/L	1.0	1		10/13/20 16:40		
,3-Dichlorobenzene	ND	ug/L	1.0	1		10/13/20 16:40		
,4-Dichlorobenzene	ND ND	J	1.0	1		10/13/20 16:40		
Dichlorodifluoromethane	ND ND	ug/L ug/L	1.0	1		10/13/20 16:40		
.1-Dichloroethane								
,	ND	ug/L	1.0	1		10/13/20 16:40		
,2-Dichloroethane	ND	ug/L	1.0	1		10/13/20 16:40		
,1-Dichloroethene	ND	ug/L	1.0	1		10/13/20 16:40		
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		10/13/20 16:40		
rans-1,2-Dichloroethene	ND	ug/L	1.0	1		10/13/20 16:40		
,2-Dichloropropane	ND	ug/L	1.0	1		10/13/20 16:40		
,3-Dichloropropane	ND	ug/L	1.0	1		10/13/20 16:40		
,2-Dichloropropane	ND	ug/L	1.0	1		10/13/20 16:40	594-20-7	
,1-Dichloropropene	ND	ug/L	1.0	1		10/13/20 16:40	563-58-6	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		10/13/20 16:40	10061-01-5	



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

Sample: GW-MN05-AWI-100720	Lab ID: 924	99650002	Collected: 10/07/2	20 11:10	Received: 1	10/08/20 16:54	Matrix: Water	<u> </u>
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
8260D MSV Low Level Landfill	Analytical Met	nod: EPA 82	260D					
	Pace Analytica	al Services -	Charlotte					
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		10/13/20 16:40	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		10/13/20 16:40	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		10/13/20 16:40	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		10/13/20 16:40	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		10/13/20 16:40	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		10/13/20 16:40	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		10/13/20 16:40	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		10/13/20 16:40	108-10-1	
Methyl-tert-butyl ether	2.1	ug/L	1.0	1		10/13/20 16:40	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		10/13/20 16:40	91-20-3	
Styrene	ND	ug/L	1.0	1		10/13/20 16:40	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		10/13/20 16:40	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		10/13/20 16:40	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		10/13/20 16:40	) 127-18-4	
Toluene	ND	ug/L	1.0	1		10/13/20 16:40	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		10/13/20 16:40	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		10/13/20 16:40	) 120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		10/13/20 16:40	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		10/13/20 16:40	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		10/13/20 16:40	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		10/13/20 16:40		
1,2,3-Trichloropropane	ND	ug/L	1.0	1		10/13/20 16:40	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		10/13/20 16:40		
Vinyl chloride	ND	ug/L	1.0	1		10/13/20 16:40		
Xylene (Total)	ND	ug/L	1.0	1		10/13/20 16:40		
m&p-Xylene	ND	ug/L	2.0	1			) 179601-23-1	
o-Xylene	ND	ug/L	1.0	1		10/13/20 16:40		
Surrogates	_	· 3· -						
4-Bromofluorobenzene (S)	97	%	70-130	1		10/13/20 16:40	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130	1		10/13/20 16:40	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1		10/13/20 16:40		



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

•	Units	Report	t Limit	DF	Droporo-l			
•	- J EDA 00			DF	Prepared	Analyzed	CAS No.	Qua
	0a: EPA 80	082A Prepara	ation Me	thod: EF	PA 3510C			
e Analytical	Services -	Charlotte						
ND	ug/L		0.50	1	10/13/20 08:18	10/15/20 01:55	12674-11-2	
ND	ug/L		0.50	1	10/13/20 08:18	10/15/20 01:55	11104-28-2	
ND	ug/L		0.50	1	10/13/20 08:18	10/15/20 01:55	11141-16-5	
ND	ug/L		0.50	1	10/13/20 08:18	10/15/20 01:55	53469-21-9	
ND	ug/L		0.50	1	10/13/20 08:18	10/15/20 01:55	12672-29-6	
ND	ug/L		0.50	1	10/13/20 08:18	10/15/20 01:55	11097-69-1	
ND	ug/L		0.50	1	10/13/20 08:18	10/15/20 01:55	11096-82-5	
50	%	•	10-181	1	10/13/20 08:18	10/15/20 01:55	2051-24-3	
lytical Meth	od: EPA 60	010D Prepara	ation Me	thod: EF	PA 3010A			
e Analytical	Services -	Peachtree C	Corners,	GA				
ND	ug/L		30.0	1	10/09/20 11:20	10/09/20 18:49	7440-38-2	
87.4	ug/L		10.0	1	10/09/20 11:20	10/09/20 18:49	7440-39-3	
ND	ug/L		10.0	1	10/09/20 11:20	10/09/20 18:49	7440-43-9	
ND	ug/L		10.0	1	10/09/20 11:20	10/09/20 18:49	7440-47-3	
ND	ug/L		15.0	1	10/09/20 11:20	10/09/20 18:49	7439-92-1	
ND	ug/L		40.0	1	10/09/20 11:20	10/09/20 18:49	7782-49-2	
ND	ug/L		10.0	1	10/09/20 11:20	10/09/20 18:49	7440-22-4	
lytical Meth	od: EPA 74	170A Prepara	ation Me	thod: EF	PA 7470A			
e Analytical	Services -	Peachtree C	Corners,	GA				
ND	ug/L		0.20	1	10/12/20 14:30	10/13/20 11:25	7439-97-6	
	ND ND ND 50 lytical Methors Analytical ND 87.4 ND ND ND ND ND ND ND ND Lytical Methors e Analytical	ND ug/L ND ug/L ND ug/L ND ug/L ND ug/L 50 %  llytical Method: EPA 60 or Analytical Services - ND ug/L	ND ug/L ND ug/L ND ug/L ND ug/L ND ug/L 50 %  llytical Method: EPA 6010D Prepare Analytical Services - Peachtree Company of the peach o	ND         ug/L         0.50           50         %         10-181           Ilytical Method: EPA 6010D Preparation Mee         e Analytical Services - Peachtree Corners, 0           ND         ug/L         30.0           87.4         ug/L         10.0           ND         ug/L         10.0           ND         ug/L         15.0           ND         ug/L         40.0           ND         ug/L         10.0           ND         ug/L         10.0	ND         ug/L         0.50         1           50         %         10-181         1           Ilytical Method: EPA 6010D Preparation Method: EFA Analytical Services - Peachtree Corners, GA         ND         ug/L         30.0         1           87.4         ug/L         10.0         1         1         1         1           ND         ug/L         10.0         1 <td>ND ug/L 0.50 1 10/13/20 08:18 ND ug/L 0.50 1 10/13/20 08:18 So % 10-181 1 10/13/20 08:18  Ilytical Method: EPA 6010D Preparation Method: EPA 3010A The Analytical Services - Peachtree Corners, GA  ND ug/L 30.0 1 10/09/20 11:20 The Analytical Method: EPA 10.0 1 10/09/20 11:20 ND ug/L 10.0 1 10/09/20 11:20 ND ug/L 10.0 1 10/09/20 11:20 ND ug/L 15.0 1 10/09/20 11:20 ND ug/L 15.0 1 10/09/20 11:20 ND ug/L 40.0 1 10/09/20 11:20</td> <td>ND ug/L 0.50 1 10/13/20 08:18 10/15/20 01:55 ND ug/L 0.50 1 10/13/20 08:18 10/15/20 01:55  50 % 10-181 1 10/13/20 08:18 10/15/20 01:55  Ilytical Method: EPA 6010D Preparation Method: EPA 3010A  Re Analytical Services - Peachtree Corners, GA  ND ug/L 30.0 1 10/09/20 11:20 10/09/20 18:49  87.4 ug/L 10.0 1 10/09/20 11:20 10/09/20 18:49  ND ug/L 15.0 1 10/09/20 11:20 10/09/20 18:49  ND ug/L 40.0 1 10/09/20 11:20 10/09/20 18:49</td> <td>ND ug/L 0.50 1 10/13/20 08:18 10/15/20 01:55 11141-16-5 ND ug/L 0.50 1 10/13/20 08:18 10/15/20 01:55 53469-21-9 ND ug/L 0.50 1 10/13/20 08:18 10/15/20 01:55 12672-29-6 ND ug/L 0.50 1 10/13/20 08:18 10/15/20 01:55 11097-69-1 ND ug/L 0.50 1 10/13/20 08:18 10/15/20 01:55 11097-69-1 ND ug/L 0.50 1 10/13/20 08:18 10/15/20 01:55 11096-82-5 10 % 10-181 1 10/13/20 08:18 10/15/20 01:55 11096-82-5 10 % 10-181 1 10/13/20 08:18 10/15/20 01:55 11096-82-5 10 % 10-181 1 10/13/20 08:18 10/15/20 01:55 11096-82-5 10 % 10-181 1 10/13/20 08:18 10/15/20 01:55 11096-82-5 10 % 10/181 1 10/13/20 08:18 10/15/20 01:55 11096-82-5 10 % 10/181 1 10/18/20 08:18 10/15/20 01:55 11096-82-5 10 % 10/181 1 10/18/20 08:18 10/15/20 01:55 11096-82-5 10 % 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 10/18/20</td>	ND ug/L 0.50 1 10/13/20 08:18 So % 10-181 1 10/13/20 08:18  Ilytical Method: EPA 6010D Preparation Method: EPA 3010A The Analytical Services - Peachtree Corners, GA  ND ug/L 30.0 1 10/09/20 11:20 The Analytical Method: EPA 10.0 1 10/09/20 11:20 ND ug/L 10.0 1 10/09/20 11:20 ND ug/L 10.0 1 10/09/20 11:20 ND ug/L 15.0 1 10/09/20 11:20 ND ug/L 15.0 1 10/09/20 11:20 ND ug/L 40.0 1 10/09/20 11:20	ND ug/L 0.50 1 10/13/20 08:18 10/15/20 01:55  50 % 10-181 1 10/13/20 08:18 10/15/20 01:55  Ilytical Method: EPA 6010D Preparation Method: EPA 3010A  Re Analytical Services - Peachtree Corners, GA  ND ug/L 30.0 1 10/09/20 11:20 10/09/20 18:49  87.4 ug/L 10.0 1 10/09/20 11:20 10/09/20 18:49  ND ug/L 15.0 1 10/09/20 11:20 10/09/20 18:49  ND ug/L 40.0 1 10/09/20 11:20 10/09/20 18:49	ND ug/L 0.50 1 10/13/20 08:18 10/15/20 01:55 11141-16-5 ND ug/L 0.50 1 10/13/20 08:18 10/15/20 01:55 53469-21-9 ND ug/L 0.50 1 10/13/20 08:18 10/15/20 01:55 12672-29-6 ND ug/L 0.50 1 10/13/20 08:18 10/15/20 01:55 11097-69-1 ND ug/L 0.50 1 10/13/20 08:18 10/15/20 01:55 11097-69-1 ND ug/L 0.50 1 10/13/20 08:18 10/15/20 01:55 11096-82-5 10 % 10-181 1 10/13/20 08:18 10/15/20 01:55 11096-82-5 10 % 10-181 1 10/13/20 08:18 10/15/20 01:55 11096-82-5 10 % 10-181 1 10/13/20 08:18 10/15/20 01:55 11096-82-5 10 % 10-181 1 10/13/20 08:18 10/15/20 01:55 11096-82-5 10 % 10/181 1 10/13/20 08:18 10/15/20 01:55 11096-82-5 10 % 10/181 1 10/18/20 08:18 10/15/20 01:55 11096-82-5 10 % 10/181 1 10/18/20 08:18 10/15/20 01:55 11096-82-5 10 % 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 11096-82-5 10/18/20 08:18 10/15/20 01:55 10/18/20



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

Sample: GW-MN04-AWI-100720 MS/MSD	Lab ID:	92499650004	Collected: 10/07/2	20 13:45	Received: 10	/08/20 16:54 I	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
8082 GCS PCB RVE	Analytical	Method: EPA 80	082A Preparation Me	ethod: EF	PA 3510C			
	Pace Anal	ytical Services -	Charlotte					
PCB-1016 (Aroclor 1016)	NE	) ug/L	0.50	1	10/13/20 08:18	10/15/20 02:06	12674-11-2	
PCB-1221 (Aroclor 1221)	NE	J	0.50	1	10/13/20 08:18			
PCB-1232 (Aroclor 1232)	NE	-	0.50	1	10/13/20 08:18			
PCB-1242 (Aroclor 1242)	NE	-	0.50	1	10/13/20 08:18			
PCB-1248 (Aroclor 1248)	NE	-	0.50	1	10/13/20 08:18			
PCB-1254 (Aroclor 1254)	NE	-	0.50	1	10/13/20 08:18			
PCB-1260 (Aroclor 1260)	NE	•	0.50	1	10/13/20 08:18			
Surrogates	INL	o ug/L	0.50	'	10/13/20 00.10	10/13/20 02.00	11090-02-3	
Decachlorobiphenyl (S)	52	2 %	10-181	1	10/13/20 08:18	10/15/20 02:06	2051-24-3	
6010D ATL ICP	Analytical	Method: EPA 60	010D Preparation Me	ethod: Ef	PA 3010A			
	Pace Anal	ytical Services -	Peachtree Corners,	GA				
Arsenic	NE	ug/L	30.0	1	10/09/20 11:20	10/00/20 19:53	7440 29 2	
Barium	68.7	_	10.0	1	10/09/20 11:20			
Danum Cadmium	NE	U			10/09/20 11:20			
		J	10.0	1				
Chromium ∟ead	NE NE	J	10.0 15.0	1 1	10/09/20 11:20 10/09/20 11:20			
zeau Selenium	NE NE	J	40.0	1	10/09/20 11:20			
Silver	NE NE	J	10.0	1	10/09/20 11:20			
		· ·	170A Preparation Me					
7470 Mercury			Peachtree Corners,		-A 1410A			
Mercury	0.32	ug/L	0.20	1	10/12/20 14:30	10/13/20 11:27	7439-97-6	
8270E RVE	Analytical	Method: FPA 82	270E Preparation Me	ethod: FF	PA 3510C			
JET VE KVE		ytical Services -		J.1100. E1	7,00100			
Acenaphthene	NE	) ug/L	10.0	1	10/12/20 20:43	10/14/20 13:04	83-32-9	
Acenaphthylene	NE	J	10.0	1	10/12/20 20:43			
Aniline	NE	_	10.0	1	10/12/20 20:43			R1
Anthracene	NE	•	10.0	1	10/12/20 20:43			
Benzo(a)anthracene	NE		10.0	1	10/12/20 20:43			
Benzo(a)pyrene	NE	•	10.0	1	10/12/20 20:43			
Benzo(b)fluoranthene	NE	•	10.0	1	10/12/20 20:43			
Benzo(g,h,i)perylene	NE	U	10.0	1	10/12/20 20:43			
Benzo(k)fluoranthene	NE	_	10.0	1	10/12/20 20:43			
	INL	o ug/L			10/12/20 20:43			L2
	NIT	) ua/l	50.0					LZ
Benzoic Acid	NE NE	•	50.0	1				
Benzoic Acid Benzyl alcohol	NE	ug/L	20.0	1	10/12/20 20:43	10/14/20 13:04	100-51-6	
Benzoic Acid Benzyl alcohol 4-Bromophenylphenyl ether	NE NE	ug/L ug/L	20.0 10.0	1 1	10/12/20 20:43 10/12/20 20:43	10/14/20 13:04 10/14/20 13:04	100-51-6 101-55-3	
Benzoic Acid Benzyl alcohol 4-Bromophenylphenyl ether Butylbenzylphthalate	NE NE NE	ug/L ug/L ug/L	20.0 10.0 10.0	1 1 1	10/12/20 20:43 10/12/20 20:43 10/12/20 20:43	10/14/20 13:04 10/14/20 13:04 10/14/20 13:04	100-51-6 101-55-3 85-68-7	
Benzoic Acid Benzyl alcohol 4-Bromophenylphenyl ether Butylbenzylphthalate 4-Chloro-3-methylphenol	NE NE NE	ug/L ug/L ug/L ug/L	20.0 10.0 10.0 10.0	1 1 1 1	10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43	10/14/20 13:04 10/14/20 13:04 10/14/20 13:04 10/14/20 13:04	100-51-6 101-55-3 85-68-7 59-50-7	
Benzoic Acid Benzyl alcohol 4-Bromophenylphenyl ether Butylbenzylphthalate 4-Chloro-3-methylphenol 4-Chloroaniline	NE NE NE NE	ug/L ug/L ug/L ug/L ug/L ug/L	20.0 10.0 10.0 10.0 20.0	1 1 1 1	10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43	10/14/20 13:04 10/14/20 13:04 10/14/20 13:04 10/14/20 13:04 10/14/20 13:04	100-51-6 101-55-3 85-68-7 59-50-7 106-47-8	
Benzoic Acid Benzyl alcohol 4-Bromophenylphenyl ether Butylbenzylphthalate 4-Chloro-3-methylphenol 4-Chloroaniline bis(2-Chloroethoxy)methane	NE NE NE NE NE	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	20.0 10.0 10.0 10.0 20.0 10.0	1 1 1 1 1	10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43	10/14/20 13:04 10/14/20 13:04 10/14/20 13:04 10/14/20 13:04 10/14/20 13:04 10/14/20 13:04	100-51-6 101-55-3 85-68-7 59-50-7 106-47-8 111-91-1	
Benzoic Acid Benzoic Acid Benzyl alcohol 4-Bromophenylphenyl ether Butylbenzylphthalate 4-Chloro-3-methylphenol 4-Chloroaniline bis(2-Chloroethoxy)methane bis(2-Chloroethyl) ether 2-Chloronaphthalene	NE NE NE NE	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	20.0 10.0 10.0 10.0 20.0	1 1 1 1	10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43 10/12/20 20:43	10/14/20 13:04 10/14/20 13:04 10/14/20 13:04 10/14/20 13:04 10/14/20 13:04 10/14/20 13:04 10/14/20 13:04	100-51-6 101-55-3 85-68-7 59-50-7 106-47-8 111-91-1	



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

Sample: GW-MN04-AWI-100720 Lab ID: 92499650004 Collected: 10/07/20 13:45 Received: 10/08/20 16:54 Matrix: Water MS/MSD DF CAS No. **Parameters** Results Units Report Limit Prepared Analyzed Qual Analytical Method: EPA 8270E Preparation Method: EPA 3510C **8270E RVE** Pace Analytical Services - Charlotte ND 4-Chlorophenylphenyl ether ug/L 10.0 1 10/12/20 20:43 10/14/20 13:04 7005-72-3 ND ug/L 10.0 10/12/20 20:43 10/14/20 13:04 218-01-9 Chrysene 1 ND 10.0 10/12/20 20:43 10/14/20 13:04 53-70-3 Dibenz(a,h)anthracene ug/L 1 ND ug/L 10.0 10/12/20 20:43 10/14/20 13:04 132-64-9 Dibenzofuran 1 ND 10.0 10/12/20 20:43 10/14/20 13:04 95-50-1 1.2-Dichlorobenzene ug/L 1 ND 10.0 10/12/20 20:43 10/14/20 13:04 541-73-1 1,3-Dichlorobenzene ug/L 1 1,4-Dichlorobenzene ND ug/L 10.0 1 10/12/20 20:43 10/14/20 13:04 106-46-7 3,3'-Dichlorobenzidine ND ug/L 20.0 10/12/20 20:43 10/14/20 13:04 91-94-1 2,4-Dichlorophenol ND ug/L 10.0 10/12/20 20:43 10/14/20 13:04 120-83-2 Diethylphthalate ND ug/L 10.0 10/12/20 20:43 10/14/20 13:04 84-66-2 2,4-Dimethylphenol ND ug/L 10.0 1 10/12/20 20:43 10/14/20 13:04 105-67-9 Dimethylphthalate ND ua/L 10.0 10/12/20 20:43 10/14/20 13:04 131-11-3 1 Di-n-butylphthalate ND 10.0 10/12/20 20:43 10/14/20 13:04 84-74-2 ug/L 1 ND 20.0 10/12/20 20:43 10/14/20 13:04 534-52-1 4,6-Dinitro-2-methylphenol ug/L 1 2,4-Dinitrophenol ND ug/L 50.0 10/12/20 20:43 10/14/20 13:04 51-28-5 1 10/12/20 20:43 10/14/20 13:04 121-14-2 2,4-Dinitrotoluene ND 10.0 1 ug/L 2,6-Dinitrotoluene ND ug/L 10.0 1 10/12/20 20:43 10/14/20 13:04 606-20-2 Di-n-octylphthalate ND ug/L 10.0 1 10/12/20 20:43 10/14/20 13:04 117-84-0 bis(2-Ethylhexyl)phthalate ND ug/L 6.0 1 10/12/20 20:43 10/14/20 13:04 117-81-7 Fluoranthene ND ug/L 10.0 1 10/12/20 20:43 10/14/20 13:04 206-44-0 Fluorene ND 10.0 10/12/20 20:43 10/14/20 13:04 86-73-7 ug/L 1 Hexachloro-1,3-butadiene ND ug/L 10.0 1 10/12/20 20:43 10/14/20 13:04 87-68-3 Hexachlorobenzene ND ug/L 10.0 10/12/20 20:43 10/14/20 13:04 118-74-1 1 Hexachlorocyclopentadiene ND ug/L 10.0 1 10/12/20 20:43 10/14/20 13:04 77-47-4 Hexachloroethane ND 10.0 10/12/20 20:43 10/14/20 13:04 67-72-1 ug/L 1 ND 10.0 10/12/20 20:43 10/14/20 13:04 193-39-5 Indeno(1,2,3-cd)pyrene ug/L 1 ND Isophorone ug/L 10.0 10/12/20 20:43 10/14/20 13:04 78-59-1 1 ND 1-Methylnaphthalene ug/L 10.0 1 10/12/20 20:43 10/14/20 13:04 90-12-0 ND 2-Methylnaphthalene ug/L 10.0 1 10/12/20 20:43 10/14/20 13:04 91-57-6 2-Methylphenol(o-Cresol) ND ug/L 10.0 1 10/12/20 20:43 10/14/20 13:04 95-48-7 3&4-Methylphenol(m&p Cresol) ND ug/L 10.0 10/12/20 20:43 10/14/20 13:04 15831-10-4 1 Naphthalene ND ug/L 10.0 1 10/12/20 20:43 10/14/20 13:04 91-20-3 2-Nitroaniline ND ug/L 20.0 1 10/12/20 20:43 10/14/20 13:04 88-74-4 3-Nitroaniline ND ug/L 20.0 1 10/12/20 20:43 10/14/20 13:04 99-09-2 4-Nitroaniline ND ua/L 20.0 1 10/12/20 20:43 10/14/20 13:04 100-01-6 ND 10.0 Nitrobenzene ug/L 1 10/12/20 20:43 10/14/20 13:04 98-95-3 10/12/20 20:43 10/14/20 13:04 88-75-5 2-Nitrophenol ND ug/L 10.0 1 4-Nitrophenol ND ug/L 50.0 1 10/12/20 20:43 10/14/20 13:04 100-02-7 10/12/20 20:43 10/14/20 13:04 62-75-9 N-Nitrosodimethylamine ND 10.0 ug/L 1 ND N-Nitroso-di-n-propylamine ug/L 10.0 1 10/12/20 20:43 10/14/20 13:04 621-64-7 N-Nitrosodiphenylamine ND ug/L 10.0 1 10/12/20 20:43 10/14/20 13:04 86-30-6 2,2'-Oxybis(1-chloropropane) ND ug/L 10.0 1 10/12/20 20:43 10/14/20 13:04 108-60-1 Pentachlorophenol ND 20.0 10/12/20 20:43 10/14/20 13:04 87-86-5 ug/L 1 Phenanthrene ND 10.0 10/12/20 20:43 10/14/20 13:04 85-01-8 ug/L 1 ND Phenol ug/L 10.0 10/12/20 20:43 10/14/20 13:04 108-95-2



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

Sample: GW-MN04-AWI-100720 MS/MSD	Lab ID:	92499650004	Collected: 10/07/2	0 13:45	Received: 10	/08/20 16:54	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
8270E RVE	Analytical I	Method: EPA 82	270E Preparation Me	thod: Ef	PA 3510C			
	Pace Analy	rtical Services -	Charlotte					
Pyrene	ND	ug/L	10.0	1	10/12/20 20:43	10/14/20 12:0/	120.00.0	
1,2,4-Trichlorobenzene	ND ND	0	10.0	1	10/12/20 20:43			
· ·	ND ND	_	10.0	1	10/12/20 20:43			
2,4,5-Trichlorophenol 2,4,6-Trichlorophenol	ND ND	0	10.0	1	10/12/20 20:43			
Surrogates	INL	ug/L	10.0	'	10/12/20 20.43	10/14/20 13.04	80-00-2	
Nitrobenzene-d5 (S)	60	%	10-144	1	10/12/20 20:43	10/14/20 13:04	4165-60-0	
2-Fluorobiphenyl (S)	56		10-130	1	10/12/20 20:43			
Terphenyl-d14 (S)	77		34-163	1	10/12/20 20:43			
Phenol-d6 (S)	32		10-130	1	10/12/20 20:43			
2-Fluorophenol (S)	41		10-130	1	10/12/20 20:43			
2,4,6-Tribromophenol (S)	55		10-144	1	10/12/20 20:43			
2,4,0 111510111011101 (0)	00	, ,0	10 144	•	10/12/20 20:40	10/14/20 10:04	110700	
8260D MSV Low Level Landfill	Analytical I	Method: EPA 82	260D					
	Pace Analy	rtical Services -	Charlotte					
Acetone	ND	ug/L	25.0	1		10/13/20 16:58	67-64-1	
Benzene	NE	ŭ	1.0	1		10/13/20 16:58		
Bromobenzene	ND	J	1.0	1		10/13/20 16:58	-	
Bromochloromethane	NE	ŭ	1.0	1		10/13/20 16:58		
Bromodichloromethane	NE	_	1.0	1		10/13/20 16:58		
Bromoform	NE	_	1.0	1		10/13/20 16:58		
Bromomethane	ND	_	2.0	1		10/13/20 16:58		IK
2-Butanone (MEK)	ND	_	5.0	1		10/13/20 16:58		ш
Carbon tetrachloride	NE	ŭ	1.0	1		10/13/20 16:58		
Chlorobenzene	ND	_	1.0	1		10/13/20 16:58		
Chloroethane	ND ND	_	1.0	1		10/13/20 16:58		
Chloroform	ND ND	_	5.0	1		10/13/20 16:58		
Chloromethane	NC NC	J	1.0	1		10/13/20 16:58		
2-Chlorotoluene	ND ND	ŭ	1.0	1		10/13/20 16:58		
4-Chlorotoluene	ND	_	1.0	1		10/13/20 16:58		
1,2-Dibromo-3-chloropropane	ND ND	0	5.0	1		10/13/20 16:58		
Dibromochloromethane	ND ND	_	1.0	1		10/13/20 16:58		
1,2-Dibromoethane (EDB)	NC NC	_	1.0	1		10/13/20 16:58	_	
Dibromomethane	ND	ŭ	1.0	1		10/13/20 16:58		
1,2-Dichlorobenzene	ND ND	- 3	1.0	1		10/13/20 16:58		
		ŭ		•		10/13/20 16:58		
1,3-Dichlorobenzene	ND ND	ŭ	1.0	1		10/13/20 16:58		
1,4-Dichlorobenzene Dichlorodifluoromethane	NC NC	•	1.0 1.0	1 1		10/13/20 16:58		
1,1-Dichloroethane	ND ND	_	1.0	1		10/13/20 16:58		
1,2-Dichloroethane	NC NC		1.0	1		10/13/20 16:58		
1,2-Dichloroethane 1,1-Dichloroethene	NC NC	Ū				10/13/20 16:58		
		ŭ	1.0	1				
cis-1,2-Dichloroethene	ND	•	1.0	1		10/13/20 16:58		
trans-1,2-Dichloroethene	ND	_	1.0	1		10/13/20 16:58		
1,2-Dichloropropane	ND	ŭ	1.0	1		10/13/20 16:58		
1,3-Dichloropropane	ND	ug/L	1.0	1		10/13/20 16:58	142-28-9	



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

Sample: GW-MN04-AWI-100720 Lab ID: 92499650004 Received: 10/08/20 16:54 Collected: 10/07/20 13:45 Matrix: Water MS/MSD DF Results Report Limit Prepared CAS No. **Parameters** Units Analyzed Qual Analytical Method: EPA 8260D 8260D MSV Low Level Landfill Pace Analytical Services - Charlotte ND 10/13/20 16:58 563-58-6 1,1-Dichloropropene ug/L 1.0 1 cis-1,3-Dichloropropene ND ug/L 1.0 10/13/20 16:58 10061-01-5 1 ND 10/13/20 16:58 10061-02-6 trans-1,3-Dichloropropene ug/L 1.0 1 10/13/20 16:58 108-20-3 ND ug/L 1.0 Diisopropyl ether 1 ND 1.0 10/13/20 16:58 100-41-4 Ethylbenzene ug/L 1 Hexachloro-1,3-butadiene ND 1.0 10/13/20 16:58 87-68-3 ug/L 1 2-Hexanone ND ug/L 5.0 1 10/13/20 16:58 591-78-6 p-Isopropyltoluene ND ug/L 1.0 10/13/20 16:58 99-87-6 Methylene Chloride ND ug/L 5.0 10/13/20 16:58 75-09-2 4-Methyl-2-pentanone (MIBK) ND ug/L 5.0 10/13/20 16:58 108-10-1 Methyl-tert-butyl ether ND ug/L 1.0 1 10/13/20 16:58 1634-04-4 Naphthalene ND ua/L 1.0 10/13/20 16:58 91-20-3 1 Styrene ND 1.0 10/13/20 16:58 100-42-5 ug/L 1 1,1,1,2-Tetrachloroethane ND 1.0 10/13/20 16:58 630-20-6 ug/L 1 1.1.2.2-Tetrachloroethane ND ug/L 1.0 10/13/20 16:58 79-34-5 1 Tetrachloroethene ND ug/L 1.0 10/13/20 16:58 127-18-4 1 Toluene ND ug/L 1.0 1 10/13/20 16:58 108-88-3 1,2,3-Trichlorobenzene ND ug/L 1.0 1 10/13/20 16:58 87-61-6 1,2,4-Trichlorobenzene ND ug/L 1.0 1 10/13/20 16:58 120-82-1 1,1,1-Trichloroethane ND ug/L 1.0 1 10/13/20 16:58 71-55-6 1,1,2-Trichloroethane ND ug/L 1.0 10/13/20 16:58 79-00-5 1 ND Trichloroethene ug/L 1.0 1 10/13/20 16:58 79-01-6 Trichlorofluoromethane ND ug/L 1.0 10/13/20 16:58 75-69-4 1 1,2,3-Trichloropropane ND ug/L 1.0 1 10/13/20 16:58 96-18-4 Vinyl acetate ND ug/L 2.0 10/13/20 16:58 108-05-4 1 ND Vinyl chloride ug/L 1.0 10/13/20 16:58 75-01-4 1 Xylene (Total) ND 10/13/20 16:58 1330-20-7 ug/L 1.0 1 m&p-Xylene ND 2.0 ug/L 1 10/13/20 16:58 179601-23-1 o-Xylene ND 10/13/20 16:58 95-47-6 ug/L 1.0 1 Surrogates % 4-Bromofluorobenzene (S) 98 70-130 1 10/13/20 16:58 460-00-4 % 1,2-Dichloroethane-d4 (S) 101 70-130 10/13/20 16:58 17060-07-0 1 Toluene-d8 (S) 101 % 70-130 10/13/20 16:58 2037-26-5 1



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

Sample: GW-MN04-DUP-AWI- 100720	Lab ID: 924	99650005	Collected: 10/07	20 13:45	Received: 1	0/08/20 16:54	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
8082 GCS PCB RVE	Analytical Met	hod: EPA 80	082A Preparation M	ethod: EF	PA 3510C			
	Pace Analytica	al Services -	Charlotte					
PCB-1016 (Aroclor 1016)	ND	ug/L	0.50	1	10/13/20 08:18	3 10/15/20 02:4	1 12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.50	1		3 10/15/20 02:4		
PCB-1232 (Aroclor 1232)	ND	ug/L	0.50	1		3 10/15/20 02:4		
PCB-1242 (Aroclor 1242)	ND	ug/L	0.50	1		3 10/15/20 02:4		
PCB-1248 (Aroclor 1248)	ND	ug/L	0.50	1		3 10/15/20 02:4		
PCB-1254 (Aroclor 1254)	ND	ug/L	0.50	1		3 10/15/20 02:4		
PCB-1260 (Aroclor 1260)	ND	ug/L	0.50	1		3 10/15/20 02:4		
Surrogates		- 3 –		•				
Decachlorobiphenyl (S)	47	%	10-181	1	10/13/20 08:18	3 10/15/20 02:4	1 2051-24-3	
010D ATL ICP	Analytical Met	hod: EPA 60	10D Preparation M	lethod: Ef	PA 3010A			
	Pace Analytica	al Services -	Peachtree Corners	, GA				
Arsenic	ND	ug/L	30.0	1	10/09/20 11:20	10/09/20 19:1	2 7440-38-2	
Barium	70.5	ug/L	10.0	1		10/09/20 19:1		
Cadmium	ND	ug/L	10.0	1		10/09/20 19:1		
Chromium	ND	ug/L	10.0	1		10/09/20 19:1		
ead	ND	ug/L	15.0	1		10/09/20 19:1		
Selenium	ND	ug/L	40.0	1		10/09/20 19:1		
Silver	ND	ug/L	10.0	1		10/09/20 19:1		
7470 Mercury	Analytical Met	hod: EPA 74	70A Preparation M	ethod: EF	PA 7470A			
			Peachtree Corners					
Mercury	0.31	ug/L	0.20	1	10/12/20 14:30	10/13/20 11:4	1 7439-97-6	
3270E RVE	Analytical Met	hod: EPA 82	270E Preparation M	ethod: EF	PA 3510C			
	Pace Analytica							
Acenaphthene	ND	ug/L	10.0	1	10/13/20 08:15	5 10/14/20 14:2	0 83-32-9	
cenaphthylene	ND	ug/L	10.0	1		5 10/14/20 14:2		
Aniline	ND	ug/L	10.0	1		5 10/14/20 14:2		
Anthracene	ND	ug/L	10.0	1		5 10/14/20 14:2		
Benzo(a)anthracene	ND	ug/L	10.0	1		5 10/14/20 14:2	-	
Benzo(a)pyrene	ND	ug/L	10.0	1		5 10/14/20 14:2		
Benzo(b)fluoranthene	ND	ug/L	10.0	1		5 10/14/20 14:2		
Benzo(g,h,i)perylene	ND	ug/L	10.0	1	10/13/20 08:15	5 10/14/20 14:2	0 191-24-2	
Benzo(k)fluoranthene	ND	ug/L	10.0	1		5 10/14/20 14:2		
Benzoic Acid	ND	ug/L	50.0	1		5 10/14/20 14:2		L2
Benzyl alcohol	ND	ug/L	20.0	1		5 10/14/20 14:2		
-Bromophenylphenyl ether	ND	ug/L	10.0	1		5 10/14/20 14:2		
Butylbenzylphthalate	ND	ug/L	10.0	1		5 10/14/20 14:2		
-Chloro-3-methylphenol	ND	ug/L	10.0	1		5 10/14/20 14:2		
-Chloroaniline	ND	ug/L	20.0	1		5 10/14/20 14:2		
is(2-Chloroethoxy)methane	ND	ug/L	10.0	1		5 10/14/20 14:2		
` '	ND	ug/L	10.0	1		5 10/14/20 14:2		
is(2-Chloroethyl) ether								
ois(2-Chloroethyl) ether 2-Chloronaphthalene	ND	ug/L	10.0	1		5 10/14/20 14:2		



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

Sample: GW-MN04-DUP-AWI-Lab ID: 92499650005 Collected: 10/07/20 13:45 Received: 10/08/20 16:54 Matrix: Water 100720 DF CAS No. **Parameters** Results Units Report Limit Prepared Analyzed Qual Analytical Method: EPA 8270E Preparation Method: EPA 3510C **8270E RVE** Pace Analytical Services - Charlotte ND 10/13/20 08:15 10/14/20 14:20 7005-72-3 4-Chlorophenylphenyl ether ug/L 10.0 1 ND ug/L 10.0 10/13/20 08:15 10/14/20 14:20 218-01-9 Chrysene 1 ND 10.0 10/13/20 08:15 10/14/20 14:20 53-70-3 Dibenz(a,h)anthracene ug/L 1 Dibenzofuran ND ug/L 10.0 10/13/20 08:15 10/14/20 14:20 132-64-9 1 1.2-Dichlorobenzene ND 10.0 10/13/20 08:15 10/14/20 14:20 95-50-1 ug/L 1 ND 10.0 10/13/20 08:15 10/14/20 14:20 541-73-1 1,3-Dichlorobenzene ug/L 1 1,4-Dichlorobenzene ND ug/L 10.0 1 10/13/20 08:15 10/14/20 14:20 106-46-7 3,3'-Dichlorobenzidine ND ug/L 20.0 1 10/13/20 08:15 10/14/20 14:20 91-94-1 2,4-Dichlorophenol ND ug/L 10.0 10/13/20 08:15 10/14/20 14:20 120-83-2 Diethylphthalate ND ug/L 10.0 10/13/20 08:15 10/14/20 14:20 84-66-2 10.0 2,4-Dimethylphenol ND ug/L 1 10/13/20 08:15 10/14/20 14:20 105-67-9 Dimethylphthalate ND ua/L 10.0 1 10/13/20 08:15 10/14/20 14:20 131-11-3 Di-n-butylphthalate ND 10.0 10/13/20 08:15 10/14/20 14:20 84-74-2 ug/L 1 ND 20.0 10/13/20 08:15 10/14/20 14:20 534-52-1 4,6-Dinitro-2-methylphenol ug/L 1 2,4-Dinitrophenol ND ug/L 50.0 10/13/20 08:15 10/14/20 14:20 51-28-5 1 2,4-Dinitrotoluene ND ug/L 10.0 1 10/13/20 08:15 10/14/20 14:20 121-14-2 2,6-Dinitrotoluene ND ug/L 10.0 1 10/13/20 08:15 10/14/20 14:20 606-20-2 Di-n-octylphthalate ND ug/L 10.0 1 10/13/20 08:15 10/14/20 14:20 117-84-0 bis(2-Ethylhexyl)phthalate ND ug/L 6.0 1 10/13/20 08:15 10/14/20 14:20 117-81-7 Fluoranthene ND ug/L 10.0 1 10/13/20 08:15 10/14/20 14:20 206-44-0 Fluorene ND 10.0 10/13/20 08:15 10/14/20 14:20 86-73-7 ug/L 1 Hexachloro-1,3-butadiene ND 10/13/20 08:15 10/14/20 14:20 87-68-3 ug/L 10.0 1 Hexachlorobenzene ND ug/L 10.0 10/13/20 08:15 10/14/20 14:20 118-74-1 1 Hexachlorocyclopentadiene ND ug/L 10.0 1 10/13/20 08:15 10/14/20 14:20 77-47-4 Hexachloroethane ND 10.0 10/13/20 08:15 10/14/20 14:20 67-72-1 ug/L 1 ND 10.0 10/13/20 08:15 10/14/20 14:20 193-39-5 Indeno(1,2,3-cd)pyrene ug/L 1 ND 10/13/20 08:15 10/14/20 14:20 78-59-1 Isophorone ug/L 10.0 1 ND 10/13/20 08:15 10/14/20 14:20 90-12-0 1-Methylnaphthalene ug/L 10.0 1 2-Methylnaphthalene ND ug/L 10.0 1 10/13/20 08:15 10/14/20 14:20 91-57-6 2-Methylphenol(o-Cresol) ND ug/L 10.0 1 10/13/20 08:15 10/14/20 14:20 95-48-7 3&4-Methylphenol(m&p Cresol) ND ug/L 10.0 10/13/20 08:15 10/14/20 14:20 15831-10-4 1 Naphthalene ND ug/L 10.0 1 10/13/20 08:15 10/14/20 14:20 91-20-3 2-Nitroaniline ND ug/L 20.0 1 10/13/20 08:15 10/14/20 14:20 88-74-4 3-Nitroaniline ND ug/L 20.0 1 10/13/20 08:15 10/14/20 14:20 99-09-2 4-Nitroaniline ND ug/L 20.0 1 10/13/20 08:15 10/14/20 14:20 100-01-6 ND 10.0 Nitrobenzene ug/L 1 10/13/20 08:15 10/14/20 14:20 98-95-3 2-Nitrophenol ND ug/L 10.0 1 10/13/20 08:15 10/14/20 14:20 88-75-5 ND 4-Nitrophenol ug/L 50.0 1 10/13/20 08:15 10/14/20 14:20 100-02-7 N-Nitrosodimethylamine ND 10.0 ug/L 1 10/13/20 08:15 10/14/20 14:20 62-75-9 ND N-Nitroso-di-n-propylamine ug/L 10.0 1 10/13/20 08:15 10/14/20 14:20 621-64-7 N-Nitrosodiphenylamine ND ug/L 10.0 1 10/13/20 08:15 10/14/20 14:20 86-30-6 2,2'-Oxybis(1-chloropropane) ND ug/L 10.0 1 10/13/20 08:15 10/14/20 14:20 108-60-1 Pentachlorophenol ND 20.0 10/13/20 08:15 10/14/20 14:20 87-86-5 ug/L 1 Phenanthrene ND 10.0 10/13/20 08:15 10/14/20 14:20 85-01-8 ug/L 1 ND Phenol ug/L 10.0 10/13/20 08:15 10/14/20 14:20 108-95-2



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

Section   Page Analytical Method: EPA 8270E   Preparation Method: EPA 3510C   Page Analytical Services - Charlotte	Sample: GW-MN04-DUP-AWI- 100720	Lab ID:	92499650005	Collected: 10/07/	20 13:45	Received: 10	)/08/20 16:54	Matrix: Water	
Pace Analytical Services - Charlotte	Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
Pyrene	8270E RVE	Analytical	Method: EPA 82	270E Preparation M	ethod: El	PA 3510C			
1,2,4-Trichlorobenzene		Pace Anal	ytical Services	- Charlotte					
1,2,4-Trichlorobenzene	Dyrono	NIT	. ua/l	10.0	1	10/13/20 09:15	10/14/20 14:20	120.00.0	
2.4.6-Trichlorophenol ND ug/L 10.0 1 10/13/20 08:15 10/14/20 14:20 95-95-4 2.4.6-Trichlorophenol ND ug/L 10.0 1 10/13/20 08:15 10/14/20 14:20 95-95-4 2.4.6-Trichlorophenol ND ug/L 10.1 1 10/13/20 08:15 10/14/20 14:20 95-95-4 10/13/20 08:15 10/14/20 14:20 95-95-4 10/13/20 08:15 10/14/20 14:20 95-95-4 10/13/20 18:15 10/14/20 14:20 95-95-4 10/13/20 18:15 10/14/20 14:20 95-95-4 10/13/20 18:15 10/14/20 14:20 95-95-4 10/13/20 18:15 10/14/20 14:20 95-95-4 10/13/20 18:15 10/14/20 14:20 95-95-4 10/13/20 18:15 10/14/20 14:20 95-95-4 10/13/20 18:15 10/14/20 14:20 95-95-4 10/13/20 18:15 10/14/20 14:20 95-95-4 10/13/20 18:15 10/14/20 14:20 95-95-4 10/13/20 18:15 10/14/20 14:20 95-95-4 10/13/20 18:15 10/14/20 14:20 95-95-4 10/13/20 18:15 10/14/20 14:20 95-95-4 10/13/20 18:15 10/14/20 14:20 95-95-4 10/13/20 18:15 10/14/20 14:20 95-95-95-95-95-95-95-95-95-95-95-95-95-9	•		J						
2.4 E-Trichlorophenol   ND	• •		_						
Surrogates   10-144	•		_						
Nitrobenzene-d5 (S) 50 % 10-144 1 1 01/13/20 08:15 10/14/20 14:20 4165-62 2-Fluorobiphenyl (S) 47 % 10-130 1 1 10/13/20 08:15 10/14/20 14:20 321-60-10-10-10-10-10-10-10-10-10-10-10-10-10	•	INL	J ug/L	10.0	'	10/13/20 00.13	10/14/20 14.20	0 00-00-2	
2-Fluorobiphenyl (S) 47 % 10-130 1 10/13/20 18:15 10/14/20 14:20 321-60- Terphenyl-d14 (S) 71 % 34-163 1 10/13/20 08:15 10/14/20 14:20 17:18-51 Phenol-d6 (S) 27 % 10-130 1 10/13/20 08:15 10/14/20 14:20 17:18-51 Phenol-d6 (S) 34 % 10-130 1 10/13/20 08:15 10/14/20 14:20 13:12-8 2-Fluorophenol (S) 34 % 10-130 1 10/13/20 08:15 10/14/20 14:20 18:79-8 26:10 10-14 1 10/13/20 08:15 10/14/20 14:20 18:79-18 26:10 10-14 1 10/13/20 08:15 10/14/20 14:20 18:79-18 26:10 10-14 1 10/13/20 08:15 10/14/20 14:20 18:79-18 26:10 10-14 1 10/13/20 08:15 10/14/20 14:20 18:79-18 26:10 10-14 1 10/13/20 08:15 10/14/20 14:20 18:79-18 26:10 10-14 1 10/13/20 08:15 10/14/20 14:20 18:79-18 26:10 10-14 1 10/13/20 17:16 10-14 20 18:79-18 26:10 10-14 1 10/13/20 17:16 10-14 20 18:79-18 26:10 1 10/13/20 17:16 10-14 20 18:79-18 26:10 10-14 20 18:79-	-	5/	0 %	10-144	1	10/13/20 08:15	10/14/20 14:20	4165-60-0	
Terphenyl-d14 (S)	• •								
Phenold 6 (S)									
2-Fluorophenol (S) 34 % 10-130 1 10/13/20 08:15 10/14/20 14:20 367-12-2,4,6-Tribromophenol (S) 46 % 10-144 1 10/13/20 08:15 10/14/20 14:20 367-12-2,4,6-Tribromophenol (S) 46 % 10-144 1 10/13/20 08:15 10/14/20 14:20 367-12-2,4,6-Tribromophenol (S) 46 % 10-144 1 10/13/20 08:15 10/14/20 14:20 367-12-2,2,4,6-Tribromophenol (S) 46 % 10-144 1 10/13/20 08:15 10/14/20 14:20 367-12-2,2,4,6-Tribromophenol (S) 46 % 10-144 1 10/13/20 08:15 10/14/20 14:20 367-12-2,2,4,6-Tribromophenol (S) 46 % 10-144 1 10/13/20 08:15 10/14/20 14:20 118-79-8  ### ### ### ### ### ### ### ### ### #									
Analytical Method: EPA 8260D   Pace Analytical Method: EPA 8260D   Pace Analytical Services - Charlotte   ND   ug/L   1.0   1   10/13/20 17:16   67-64-1	` '								
Analytical Method: EPA 8260D   Pace Analytical Services - Charlotte									
Pace Analytical Services - Charlotte   Acetone   ND   ug/L   25.0   1   10/13/20 17:16   67-64-1   Benzene   ND   ug/L   1.0   1   10/13/20 17:16   71-43-2   Bromobenzene   ND   ug/L   1.0   1   10/13/20 17:16   71-43-2   Bromobenzene   ND   ug/L   1.0   1   10/13/20 17:16   74-97-5   Bromochloromethane   ND   ug/L   1.0   1   10/13/20 17:16   74-97-5   Bromodichloromethane   ND   ug/L   1.0   1   10/13/20 17:16   75-27-4   Bromoform   ND   ug/L   1.0   1   10/13/20 17:16   75-27-4   Bromoform   ND   ug/L   2.0   1   10/13/20 17:16   75-23-4   Bromomethane   ND   ug/L   2.0   1   10/13/20 17:16   76-83-3   Carbon tetrachloride   ND   ug/L   1.0   1   10/13/20 17:16   76-93-3   Chlorobenzene   ND   ug/L   1.0   1   10/13/20 17:16   76-93-3   Chlorobenzene   ND   ug/L   1.0   1   10/13/20 17:16   76-63-3   Chlorobenzene   ND   ug/L   1.0   1   10/13/20 17:16   76-63-3   Chloroform   ND   ug/L   1.0   1   10/13/20 17:16   76-63-3   Chlorotoluene   ND   ug/L   1.0   1   10/13/20 17:16   76-63-3   Chloromethane   ND   ug/L   1.0   1   10/13/20 17:16   96-12-8   Chlorotoluene   ND   ug/L   1.0   1   10/13/20 17:16   96-12-8   Chlorotoluene   ND   ug/L   1.0   1   10/13/20 17:16   96-12-8   Chloromethane   ND   ug/L   1.0   1   10/13/20 17:16   96-12-8   Chlorobenzene   ND   ug/L   1.0   1   10/13/20 17:16   96-93-10   Chloromethane   ND   ug/L   1.0   1   10/13/20 17:16   76-74-8   Chlorobenzene   ND   ug/L   1.0   1   10/13/20 17:16   76-74-8   Chlorobenzene   ND   ug/L   1.0   1   10/13/20 17:16   75-34-3   1.2-Dichlorobenzene   ND   ug/L   1.0   1   10/13/20 17:16   75-34-3   1.2-Dichlorobenzene   ND   ug/L   1.0   1   10/13/20 17:16   75-34-3   1.2-Dichloroethane   ND   ug/L   1.0   1   10/13/20 17:16   75-34-3   1.2-Dichloroethane   ND   ug/L   1.0   1   10/13/20 17:16   75-34-3   1.2-Dichloroethane   ND   ug/L   1.0					•	10/10/20 00:10	10/11/20 11:20		
Acetone ND ug/L 25.0 1 10/13/20 17:16 67-64-1 Benzene ND ug/L 1.0 1 10/13/20 17:16 71-43-2 Bromobenzene ND ug/L 1.0 1 10/13/20 17:16 71-43-2 Bromobenzene ND ug/L 1.0 1 10/13/20 17:16 74-97-5 Bromodichloromethane ND ug/L 1.0 1 10/13/20 17:16 78-97-5 Bromodichloromethane ND ug/L 1.0 1 10/13/20 17:16 75-27-4 Bromoform ND ug/L 1.0 1 10/13/20 17:16 75-27-4 Bromoform ND ug/L 1.0 1 10/13/20 17:16 75-27-2 Bromomethane ND ug/L 2.0 1 10/13/20 17:16 75-25-2 Bromomethane ND ug/L 5.0 1 10/13/20 17:16 78-93-3 Carbon tetrachloride ND ug/L 1.0 1 10/13/20 17:16 78-93-3 Carbon tetrachloride ND ug/L 1.0 1 10/13/20 17:16 78-93-3 Chlorobenzene ND ug/L 1.0 1 10/13/20 17:16 78-93-3 Chlorobenzene ND ug/L 1.0 1 10/13/20 17:16 78-00-3 Chlorothane ND ug/L 1.0 1 10/13/20 17:16 78-66-3 Chlorothane ND ug/L 1.0 1 10/13/20 17:16 78-66-3 Chlorothane ND ug/L 1.0 1 10/13/20 17:16 78-78-34 2-Chlorotoluene ND ug/L 1.0 1 10/13/20 17:16 74-87-3 2-Chlorotoluene ND ug/L 1.0 1 10/13/20 17:16 95-42-8 Dibromochloromethane ND ug/L 1.0 1 10/13/20 17:16 95-42-8 Dibromochloromethane ND ug/L 1.0 1 10/13/20 17:16 95-42-8 Dibromochloromethane ND ug/L 1.0 1 10/13/20 17:16 106-43-1,2-Dibromo-3-chloropropane ND ug/L 1.0 1 10/13/20 17:16 106-43-1,2-Dibromoethane ND ug/L 1.0 1 10/13/20 17:16 541-73-1,4-Dichlorobenzene ND ug/L 1.0 1 10/13/20 17:16 55-50-1 1,4-Dichlorobenzene ND ug/L 1.0 1 10/13/20 17:16 55-34-3 1,2-Dichlorobethane ND ug/L 1.0 1 10/13/20 17:16 75-34-3 1,1-Dichloroethane ND ug/L 1.0 1 10/13/20 17:16 75-34-3 1,2-Dichloroethane ND ug/L 1.0 1 10/13/20 17:16 75-34-3 1,2-Dichloroethane ND ug/L 1.0 1 10/13/20 17:16 75-34-3 1,1-Dichloroethane ND ug/L 1.0 1 10/13/20 17:16 75-34-3 1,1-Dichloroethane ND ug/L 1.0 1 10/13/20 17:16 75-34-3 1,2-Dichloroethane ND ug/L 1.0 1 10/13/20 17:16 75-34-3 1,2-D	8260D MSV Low Level Landfill	•							
Benzene		Pace Anal	ytical Services	- Charlotte					
Benzene         ND         ug/L         1.0         1         10/13/20 17:16         71-43-2           Bromobenzene         ND         ug/L         1.0         1         10/13/20 17:16         71-43-2           Bromochloromethane         ND         ug/L         1.0         1         10/13/20 17:16         74-97-5           Bromochloromethane         ND         ug/L         1.0         1         10/13/20 17:16         75-25-2           Bromoform         ND         ug/L         2.0         1         10/13/20 17:16         75-25-2           Bromomethane         ND         ug/L         2.0         1         10/13/20 17:16         75-25-2           Bromomethane         ND         ug/L         5.0         1         10/13/20 17:16         75-25-2           Bromochlane         ND         ug/L         5.0         1         10/13/20 17:16         78-93-3           Carbon tetrachloride         ND         ug/L         1.0         1         10/13/20 17:16         78-93-3           Carbon tetrachloride         ND         ug/L         1.0         1         10/13/20 17:16         78-03-3           Chlorodenzene         ND         ug/L         1.0         1         10/13/20 17	Acetone	NΓ	D ug/L	25.0	1		10/13/20 17:16	6 67-64-1	
Bromobenzene   ND	Benzene		ŭ				10/13/20 17:16	6 71-43-2	
Bromochloromethane	Bromobenzene	NΓ	-	1.0	1		10/13/20 17:16	6 108-86-1	
Bromodichloromethane   ND   ug/L   1.0   1   10/13/20 17:16   75-27-4	Bromochloromethane		•	1.0	1				
Bromoform         ND         ug/L         1.0         1         10/13/20 17:16         75-25-2           Bromomethane         ND         ug/L         2.0         1         10/13/20 17:16         74-83-9           2-Butanone (MEK)         ND         ug/L         5.0         1         10/13/20 17:16         78-83-3           Carbon tetrachloride         ND         ug/L         1.0         1         10/13/20 17:16         78-93-3           Chlorobenzene         ND         ug/L         1.0         1         10/13/20 17:16         78-93-3           Chlorobenzene         ND         ug/L         1.0         1         10/13/20 17:16         78-93-3           Chlorobenzene         ND         ug/L         1.0         1         10/13/20 17:16         78-90-90-90-90-90-90-90-90-90-90-90-90-90-	Bromodichloromethane	NΓ	_	1.0	1		10/13/20 17:16	6 75-27-4	
Bromomethane   ND   ug/L   2.0   1   10/13/20 17:16   74-83-9   2-Butanone (MEK)   ND   ug/L   5.0   1   10/13/20 17:16   78-93-3   Carbon tetrachloride   ND   ug/L   1.0   1   10/13/20 17:16   56-23-5   Chlorobenzene   ND   ug/L   1.0   1   10/13/20 17:16   56-23-5   Chlorobenzene   ND   ug/L   1.0   1   10/13/20 17:16   56-23-5   Chlorotethane   ND   ug/L   1.0   1   10/13/20 17:16   75-00-3   Chlorotethane   ND   ug/L   5.0   1   10/13/20 17:16   67-66-3   Chloromethane   ND   ug/L   1.0   1   10/13/20 17:16   67-66-3   Chlorotethane   ND   ug/L   1.0   1   10/13/20 17:16   67-66-3   Chlorotoluene   ND   ug/L   1.0   1   10/13/20 17:16   67-64-3   Chlorotoluene   ND   ug/L   1.0   1   10/13/20 17:16   67-48-4   Chlorotoluene   ND   ug/L   1.0   1   10/13/20 17:16   66-42-4   Chlorotoluene   ND   ug/L   1.0   1   10/13/20 17:16   67-66-3   Chlorotoluene   ND   ug/L   1.0   1   10/13/20 17:16   67-67-4   Chlorotoluene   ND   ug/L   1.0   1   10/13/20 17:16   67-67-4   Chlorotoluene   ND   ug/L   1.0   1   10/13/20 17:16   67-67-4   Chlorotoluene   ND   ug/L   1.0   1   10/13/20 17:16   75-71-8   Chlorotoluene   ND   ug/L   1.0   1   10/13/20 17:16   75-71-8   Chlorotoluene   ND   ug/L   1.0   1   10/13/20 17:16   75-34-4   Chlorotoluene   ND   ug/L   1.0   1   10/13/20 17:16   107-06-40-40-40-40-40-40-40-40-40-40-40-40-40-			_						
2-Butanone (MEK) ND ug/L 5.0 1 10/13/20 17:16 78-93-3 Carbon tetrachloride ND ug/L 1.0 1 10/13/20 17:16 56-23-5 Chlorobenzene ND ug/L 1.0 1 10/13/20 17:16 56-23-5 Chlorobenzene ND ug/L 1.0 1 10/13/20 17:16 108-90-Chloroethane ND ug/L 5.0 1 10/13/20 17:16 75-00-3 Chloroform ND ug/L 5.0 1 10/13/20 17:16 75-00-3 Chloromethane ND ug/L 1.0 1 10/13/20 17:16 76-63 Chloromethane ND ug/L 1.0 1 10/13/20 17:16 74-87-3 4-Chlorotoluene ND ug/L 1.0 1 10/13/20 17:16 96-49-8 4-Chlorotoluene ND ug/L 1.0 1 10/13/20 17:16 106-43-1,2-Dibromo-3-chloropropane ND ug/L 5.0 1 10/13/20 17:16 96-12-8 Dibromochloromethane ND ug/L 5.0 1 10/13/20 17:16 96-12-8 Dibromochloromethane ND ug/L 1.0 1 10/13/20 17:16 96-12-8 Dibromomethane (EDB) ND ug/L 1.0 1 10/13/20 17:16 96-13-8 Dibromomethane (EDB) ND ug/L 1.0 1 10/13/20 17:16 96-59-Dibromomethane ND ug/L 1.0 1 10/13/20 17:16 95-50-1 1,3-Dichlorobenzene ND ug/L 1.0 1 10/13/20 17:16 95-50-1 1,3-Dichlorobenzene ND ug/L 1.0 1 10/13/20 17:16 95-50-1 1,3-Dichlorobenzene ND ug/L 1.0 1 10/13/20 17:16 541-73-1,4-Dichlorobenzene ND ug/L 1.0 1 10/13/20 17:16 75-34-3 1,2-Dichlorodethane ND ug/L 1.0 1 10/13/20 17:16 75-35-4 1,2-Dichlorodethane ND ug/L 1.0 1 10/13/20 17:16 156-59-			_						
Carbon tetrachloride         ND         ug/L         1.0         1         10/13/20 17:16         56-23-5           Chlorobenzene         ND         ug/L         1.0         1         10/13/20 17:16         108-90-101           Chloroethane         ND         ug/L         1.0         1         10/13/20 17:16         75-00-3           Chloroform         ND         ug/L         5.0         1         10/13/20 17:16         67-66-3           Chlorothane         ND         ug/L         1.0         1         10/13/20 17:16         67-66-3           Chlorotoluene         ND         ug/L         1.0         1         10/13/20 17:16         67-48-73-2           4-Chlorotoluene         ND         ug/L         1.0         1         10/13/20 17:16         95-49-8           4-Chlorotoluene         ND         ug/L         1.0         1         10/13/20 17:16         95-49-8           4-Chlorotoluene         ND         ug/L         1.0         1         10/13/20 17:16         96-41-8-3           4-Chlorotoluene         ND         ug/L         1.0         1         10/13/20 17:16         96-42-8           4-Chlorotoluene         ND         ug/L         1.0         1         1			-						
Chlorobenzene         ND         ug/L         1.0         1         10/13/20 17:16         108-90-01/3/20 17:16         108-90-01/3/20 17:16         75-00-3           Chloroform         ND         ug/L         1.0         1         10/13/20 17:16         75-00-3           Chloroform         ND         ug/L         5.0         1         10/13/20 17:16         67-66-3           Chloromethane         ND         ug/L         1.0         1         10/13/20 17:16         67-66-3           Chlorotoluene         ND         ug/L         1.0         1         10/13/20 17:16         74-87-3           2-Chlorotoluene         ND         ug/L         1.0         1         10/13/20 17:16         95-49-8           4-Chlorotoluene         ND         ug/L         1.0         1         10/13/20 17:16         95-49-8           4-Chlorotoluene         ND         ug/L         1.0         1         10/13/20 17:16         96-49-8           4-Chlorotoluene         ND         ug/L         1.0         1         10/13/20 17:16         106-43-1           1,2-Dibromoethane         ND         ug/L         1.0         1         10/13/20 17:16         124-48-1           1,2-Dichlorobenzene         ND	•		•						
Chloroethane         ND         ug/L         1.0         1         10/13/20 17:16 75-00-3           Chloroform         ND         ug/L         5.0         1         10/13/20 17:16 67-66-3           Chloromethane         ND         ug/L         1.0         1         10/13/20 17:16 74-87-3           2-Chlorotoluene         ND         ug/L         1.0         1         10/13/20 17:16 95-49-8           4-Chlorotoluene         ND         ug/L         1.0         1         10/13/20 17:16 95-49-8           4-Chlorotoluene         ND         ug/L         1.0         1         10/13/20 17:16 95-49-8           4-Chlorotoluene         ND         ug/L         1.0         1         10/13/20 17:16 106-49-106-49-106-106-106-106-106-106-106-106-106-106			_						
Chloroform         ND         ug/L         5.0         1         10/13/20 17:16 67-66-3         67-66-3           Chloromethane         ND         ug/L         1.0         1         10/13/20 17:16 74-87-3         74-87-3           2-Chlorotoluene         ND         ug/L         1.0         1         10/13/20 17:16 95-49-8         95-49-8           4-Chlorotoluene         ND         ug/L         1.0         1         10/13/20 17:16 106-43-106-43-100-100-100-100-100-100-100-100-100-10			_						
Chloromethane ND ug/L 1.0 1 10/13/20 17:16 74-87-3 2-Chlorotoluene ND ug/L 1.0 1 10/13/20 17:16 74-87-3 4-Chlorotoluene ND ug/L 1.0 1 10/13/20 17:16 95-49-8 4-Chlorotoluene ND ug/L 1.0 1 10/13/20 17:16 106-43-1,2-Dibromo-3-chloropropane ND ug/L 5.0 1 10/13/20 17:16 96-12-8 Dibromochloromethane ND ug/L 1.0 1 10/13/20 17:16 124-48-1,2-Dibromoethane (EDB) ND ug/L 1.0 1 10/13/20 17:16 106-93-Dibromomethane (EDB) ND ug/L 1.0 1 10/13/20 17:16 74-95-3 1,2-Dichlorobenzene ND ug/L 1.0 1 10/13/20 17:16 95-50-1 1,3-Dichlorobenzene ND ug/L 1.0 1 10/13/20 17:16 95-50-1 1,3-Dichlorobenzene ND ug/L 1.0 1 10/13/20 17:16 541-73-1,4-Dichlorobenzene ND ug/L 1.0 1 10/13/20 17:16 541-73-1,4-Dichlorodenzene ND ug/L 1.0 1 10/13/20 17:16 75-71-8 1,1-Dichloroethane ND ug/L 1.0 1 10/13/20 17:16 75-34-3 1,2-Dichloroethane ND ug/L 1.0 1 10/13/20 17:16 75-34-3 1,2-Dichloroethane ND ug/L 1.0 1 10/13/20 17:16 107-06-1,1-Dichloroethene ND ug/L 1.0 1 10/13/20 17:16 107-06-1,1-Dichloroethene ND ug/L 1.0 1 10/13/20 17:16 156-59-10is-1,2-Dichloroethene ND ug/L 1.0 1 10/13/20 17:16 156-59-10is-10is-10is-10is-10is-10is-10is-10is			_						
2-Chlorotoluene ND ug/L 1.0 1 10/13/20 17:16 95-49-8 4-Chlorotoluene ND ug/L 1.0 1 10/13/20 17:16 106-43- 1,2-Dibromo-3-chloropropane ND ug/L 5.0 1 10/13/20 17:16 96-12-8 Dibromochloromethane ND ug/L 1.0 1 10/13/20 17:16 124-48- 1,2-Dibromoethane (EDB) ND ug/L 1.0 1 10/13/20 17:16 106-93- Dibromomethane ND ug/L 1.0 1 10/13/20 17:16 74-95-3 1,2-Dichlorobenzene ND ug/L 1.0 1 10/13/20 17:16 95-50-1 1,3-Dichlorobenzene ND ug/L 1.0 1 10/13/20 17:16 541-73- 1,4-Dichlorobenzene ND ug/L 1.0 1 10/13/20 17:16 541-73- 1,4-Dichlorodenzene ND ug/L 1.0 1 10/13/20 17:16 75-71-8 1,1-Dichloroethane ND ug/L 1.0 1 10/13/20 17:16 75-71-8 1,1-Dichloroethane ND ug/L 1.0 1 10/13/20 17:16 75-34-3 1,2-Dichloroethane ND ug/L 1.0 1 10/13/20 17:16 75-34-3 1,2-Dichloroethane ND ug/L 1.0 1 10/13/20 17:16 75-35-4 1,1-Dichloroethane ND ug/L 1.0 1 10/13/20 17:16 75-35-4 1,1-Dichloroethene ND ug/L 1.0 1 10/13/20 17:16 75-35-4 1,1-Dichloroethene ND ug/L 1.0 1 10/13/20 17:16 75-35-4 1,1-Dichloroethene ND ug/L 1.0 1 10/13/20 17:16 75-35-4 1,2-Dichloroethene ND ug/L 1.0 1 10/13/20 17:16 75-35-4 1,2-Dichloroethene ND ug/L 1.0 1 10/13/20 17:16 75-35-4			J						
4-Chlorotoluene       ND       ug/L       1.0       1       10/13/20 17:16       106-43-1,2-Dibromo-3-chloropropane         1,2-Dibromo-3-chloropropane       ND       ug/L       5.0       1       10/13/20 17:16       96-12-8         Dibromochloromethane       ND       ug/L       1.0       1       10/13/20 17:16       124-48-10-10         1,2-Dibromoethane (EDB)       ND       ug/L       1.0       1       10/13/20 17:16       106-93-10-10         Dibromomethane       ND       ug/L       1.0       1       10/13/20 17:16       74-95-3         1,2-Dichlorobenzene       ND       ug/L       1.0       1       10/13/20 17:16       95-50-1         1,3-Dichlorobenzene       ND       ug/L       1.0       1       10/13/20 17:16       541-73-10-10         1,4-Dichlorobenzene       ND       ug/L       1.0       1       10/13/20 17:16       75-71-8         1,1-Dichloroethane       ND       ug/L       1.0       1       10/13/20 17:16       75-34-3         1,2-Dichloroethane       ND       ug/L       1.0       1       10/13/20 17:16       75-35-4         cis-1,2-Dichloroethene       ND       ug/L       1.0       1       10/13/20 17:16       75-35-4 </td <td></td> <td></td> <td>•</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>			•						
1,2-Dibromo-3-chloropropane       ND       ug/L       5.0       1       10/13/20 17:16 96-12-8         Dibromochloromethane       ND       ug/L       1.0       1       10/13/20 17:16 124-48-106-93-101         1,2-Dibromoethane (EDB)       ND       ug/L       1.0       1       10/13/20 17:16 106-93-106-93-101         Dibromomethane       ND       ug/L       1.0       1       10/13/20 17:16 74-95-3         1,2-Dichlorobenzene       ND       ug/L       1.0       1       10/13/20 17:16 95-50-1         1,3-Dichlorobenzene       ND       ug/L       1.0       1       10/13/20 17:16 541-73-1         1,4-Dichlorobenzene       ND       ug/L       1.0       1       10/13/20 17:16 106-46-1         Dichlorodifluoromethane       ND       ug/L       1.0       1       10/13/20 17:16 75-71-8         1,1-Dichloroethane       ND       ug/L       1.0       1       10/13/20 17:16 75-34-3         1,2-Dichloroethene       ND       ug/L       1.0       1       10/13/20 17:16 75-35-4         cis-1,2-Dichloroethene       ND       ug/L       1.0       1       10/13/20 17:16 75-35-4			_						
Dibromochloromethane         ND         ug/L         1.0         1         10/13/20 17:16         124-48-1,2-48-1,2-Dibromoethane (EDB)           1,2-Dibromoethane (EDB)         ND         ug/L         1.0         1         10/13/20 17:16         106-93-106-106-106-106-106-106-106-106-106-106			J						
1,2-Dibromoethane (EDB)       ND       ug/L       1.0       1       10/13/20 17:16 106-93-106-93-106-106-93-106-93-106-106-93-106-106-93-106-93-106-106-93-10	• •		_						
Dibromomethane         ND         ug/L         1.0         1         10/13/20 17:16         74-95-3           1,2-Dichlorobenzene         ND         ug/L         1.0         1         10/13/20 17:16         74-95-3           1,3-Dichlorobenzene         ND         ug/L         1.0         1         10/13/20 17:16         541-73-16           1,4-Dichlorobenzene         ND         ug/L         1.0         1         10/13/20 17:16         106-46-16-16-16           Dichlorodifluoromethane         ND         ug/L         1.0         1         10/13/20 17:16         75-71-8           1,1-Dichloroethane         ND         ug/L         1.0         1         10/13/20 17:16         75-34-3           1,2-Dichloroethane         ND         ug/L         1.0         1         10/13/20 17:16         75-35-4           1,1-Dichloroethene         ND         ug/L         1.0         1         10/13/20 17:16         75-35-4           cis-1,2-Dichloroethene         ND         ug/L         1.0         1         10/13/20 17:16         75-35-4           cis-1,2-Dichloroethene         ND         ug/L         1.0         1         10/13/20 17:16         75-35-4			-						
1,2-Dichlorobenzene       ND       ug/L       1.0       1       10/13/20 17:16 95-50-1         1,3-Dichlorobenzene       ND       ug/L       1.0       1       10/13/20 17:16 541-73-1         1,4-Dichlorobenzene       ND       ug/L       1.0       1       10/13/20 17:16 106-46-1         Dichlorodifluoromethane       ND       ug/L       1.0       1       10/13/20 17:16 75-71-8         1,1-Dichloroethane       ND       ug/L       1.0       1       10/13/20 17:16 75-34-3         1,2-Dichloroethane       ND       ug/L       1.0       1       10/13/20 17:16 107-06-1         1,1-Dichloroethene       ND       ug/L       1.0       1       10/13/20 17:16 75-35-4         cis-1,2-Dichloroethene       ND       ug/L       1.0       1       10/13/20 17:16 75-35-4			ŭ						
1,3-Dichlorobenzene       ND       ug/L       1.0       1       10/13/20 17:16 541-73-17.4-Dichlorobenzene         1,4-Dichlorobenzene       ND       ug/L       1.0       1       10/13/20 17:16 106-46-17.16 106-17.16 106-17.16 106-17.16 106-17.16 106-17.16 106-17.16 106-17.16 106-17.16 106-17.16 106-17.16 106-17.16 106-17.16 106-17.16 106-17.16 106-17.16 106-17.1			- 3						
1,4-Dichlorobenzene       ND       ug/L       1.0       1       10/13/20 17:16 106-46-1			ŭ						
Dichlorodifluoromethane         ND         ug/L         1.0         1         10/13/20 17:16 75-71-8           1,1-Dichloroethane         ND         ug/L         1.0         1         10/13/20 17:16 75-34-3           1,2-Dichloroethane         ND         ug/L         1.0         1         10/13/20 17:16 107-06-10-10-10-10-10-10-10-10-10-10-10-10-10-	,		•						
1,1-Dichloroethane       ND       ug/L       1.0       1       10/13/20 17:16 75-34-3         1,2-Dichloroethane       ND       ug/L       1.0       1       10/13/20 17:16 107-06-107-06-107-107-107-107-107-107-107-107-107-107	,		•						
1,2-Dichloroethane       ND       ug/L       1.0       1       10/13/20 17:16 107-06-10			-						
1,1-Dichloroethene     ND     ug/L     1.0     1     10/13/20 17:16 75-35-4       cis-1,2-Dichloroethene     ND     ug/L     1.0     1     10/13/20 17:16 156-59-	-								
cis-1,2-Dichloroethene ND ug/L 1.0 1 10/13/20 17:16 156-59-	-		•						
·	-		ŭ						
trans-1,2-Dichloroethene ND ug/L 1.0 1 10/13/20 17:16 156-60-	•		-						
,			_						
			ŭ						
1,3-Dichloropropane         ND         ug/L         1.0         1         10/13/20 17:16         142-28-           2,2-Dichloropropane         ND         ug/L         1.0         1         10/13/20 17:16         594-20-			•						



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

Sample: GW-MN04-DUP-AWI-Lab ID: 92499650005 Received: 10/08/20 16:54 Collected: 10/07/20 13:45 Matrix: Water 100720 DF Results Report Limit Prepared CAS No. **Parameters** Units Analyzed Qual Analytical Method: EPA 8260D 8260D MSV Low Level Landfill Pace Analytical Services - Charlotte ND 1,1-Dichloropropene ug/L 1.0 1 10/13/20 17:16 563-58-6 cis-1,3-Dichloropropene ND ug/L 1.0 10/13/20 17:16 10061-01-5 1 ND 10/13/20 17:16 10061-02-6 trans-1,3-Dichloropropene ug/L 1.0 1 10/13/20 17:16 108-20-3 ND ug/L 1.0 Diisopropyl ether 1 ND 1.0 10/13/20 17:16 100-41-4 Ethylbenzene ug/L 1 Hexachloro-1,3-butadiene ND 1.0 10/13/20 17:16 87-68-3 ug/L 1 2-Hexanone ND ug/L 5.0 1 10/13/20 17:16 591-78-6 p-Isopropyltoluene ND ug/L 1.0 10/13/20 17:16 99-87-6 Methylene Chloride ND ug/L 5.0 10/13/20 17:16 75-09-2 4-Methyl-2-pentanone (MIBK) ND ug/L 5.0 10/13/20 17:16 108-10-1 Methyl-tert-butyl ether ND ug/L 1.0 1 10/13/20 17:16 1634-04-4 Naphthalene ND ua/L 1.0 10/13/20 17:16 91-20-3 1 Styrene ND 1.0 10/13/20 17:16 100-42-5 ug/L 1 1,1,1,2-Tetrachloroethane ND 1.0 10/13/20 17:16 630-20-6 ug/L 1 1.1.2.2-Tetrachloroethane ND ug/L 1.0 10/13/20 17:16 79-34-5 1 Tetrachloroethene ND ug/L 1.0 10/13/20 17:16 127-18-4 1 Toluene ND ug/L 1.0 1 10/13/20 17:16 108-88-3 1,2,3-Trichlorobenzene ND ug/L 1.0 1 10/13/20 17:16 87-61-6 1,2,4-Trichlorobenzene ND ug/L 1.0 1 10/13/20 17:16 120-82-1 1,1,1-Trichloroethane ND ug/L 1.0 1 10/13/20 17:16 71-55-6 1,1,2-Trichloroethane ND ug/L 1.0 10/13/20 17:16 79-00-5 1 ND Trichloroethene ug/L 1.0 1 10/13/20 17:16 79-01-6 Trichlorofluoromethane ND ug/L 1.0 10/13/20 17:16 75-69-4 1 1,2,3-Trichloropropane ND ug/L 1.0 1 10/13/20 17:16 96-18-4 Vinyl acetate ND ug/L 2.0 10/13/20 17:16 108-05-4 1 ND Vinyl chloride ug/L 1.0 10/13/20 17:16 75-01-4 1 Xylene (Total) ND 10/13/20 17:16 1330-20-7 ug/L 1.0 1 m&p-Xylene ND 2.0 ug/L 1 10/13/20 17:16 179601-23-1 o-Xylene ND 10/13/20 17:16 95-47-6 ug/L 1.0 1 Surrogates % 4-Bromofluorobenzene (S) 94 70-130 10/13/20 17:16 460-00-4 1 1,2-Dichloroethane-d4 (S) 99 % 70-130 10/13/20 17:16 17060-07-0 1 101 % 70-130 10/13/20 17:16 2037-26-5 Toluene-d8 (S) 1



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

Sample: TRIP BLANK	Lab ID:	92499650006	Collected:	10/06/2	00:00	Received:	10/08/20 16:54	Matrix: Water				
Parameters	Results	Units	Report	Limit	DF	Prepared	Analyzed	CAS No.	Qua			
8260D MSV Low Level Landfill	Analytical	Analytical Method: EPA 8260D										
	Pace Analy	ytical Services -	Charlotte									
Acetone	NE	D ug/L		25.0	1		10/13/20 22:54	4 67-64-1				
Benzene	NE	-		1.0	1		10/13/20 22:54	1 71-43-2				
Bromobenzene	NE	) ug/L		1.0	1		10/13/20 22:54	1 108-86-1				
Bromochloromethane	NE	•		1.0	1		10/13/20 22:54	4 74-97-5				
Bromodichloromethane	NE			1.0	1		10/13/20 22:54	1 75-27-4				
Bromoform	NE	•		1.0	1		10/13/20 22:54	1 75-25-2	v1			
Bromomethane	NE	0		2.0	1		10/13/20 22:54	4 74-83-9	v2			
2-Butanone (MEK)	NE	ū		5.0	1		10/13/20 22:54					
Carbon tetrachloride	NE	J		1.0	1		10/13/20 22:54					
Chlorobenzene	NE			1.0	1		10/13/20 22:54					
Chloroethane	NE	0		1.0	1		10/13/20 22:54					
Chloroform	NE	0		5.0	1		10/13/20 22:54					
Chloromethane	NE	ū		1.0	1		10/13/20 22:54					
2-Chlorotoluene	NE	J		1.0	1		10/13/20 22:54					
4-Chlorotoluene	NE	-		1.0	1		10/13/20 22:54					
1,2-Dibromo-3-chloropropane	NE	0		5.0	1		10/13/20 22:54					
Dibromochloromethane	NE	0		1.0	1		10/13/20 22:54					
1,2-Dibromoethane (EDB)	NE	ū		1.0	1		10/13/20 22:54					
Dibromomethane	NE NE	J		1.0	1		10/13/20 22:54					
	NE NE			1.0	1		10/13/20 22:54					
1,2-Dichlorobenzene		0			1							
1,3-Dichlorobenzene 1,4-Dichlorobenzene	NE NE	J		1.0 1.0	1		10/13/20 22:54 10/13/20 22:54					
•		J										
Dichlorodifluoromethane	NE	ū		1.0	1		10/13/20 22:54					
1,1-Dichloroethane	NE	0		1.0	1		10/13/20 22:54					
1,2-Dichloroethane	NE	0		1.0	1		10/13/20 22:54					
1,1-Dichloroethene	NE	J		1.0	1		10/13/20 22:54					
cis-1,2-Dichloroethene	NE	J		1.0	1		10/13/20 22:54					
rans-1,2-Dichloroethene	NE	•		1.0	1		10/13/20 22:54					
1,2-Dichloropropane	NE	0		1.0	1		10/13/20 22:54					
1,3-Dichloropropane	NE	0		1.0	1		10/13/20 22:54					
2,2-Dichloropropane	NE	J		1.0	1		10/13/20 22:54					
1,1-Dichloropropene	NE	J		1.0	1		10/13/20 22:54					
cis-1,3-Dichloropropene	NE	J		1.0	1		10/13/20 22:54					
rans-1,3-Dichloropropene	NE	0		1.0	1		10/13/20 22:54					
Diisopropyl ether	NE	_		1.0	1		10/13/20 22:54					
Ethylbenzene	NE	•		1.0	1		10/13/20 22:54					
Hexachloro-1,3-butadiene	NE	ū		1.0	1		10/13/20 22:54					
2-Hexanone	NE	•		5.0	1		10/13/20 22:54	4 591-78-6				
o-Isopropyltoluene	NE	ū		1.0	1		10/13/20 22:54					
Methylene Chloride	NE	) ug/L		5.0	1		10/13/20 22:54	4 75-09-2				
4-Methyl-2-pentanone (MIBK)	NE	) ug/L		5.0	1		10/13/20 22:54					
Methyl-tert-butyl ether	NE	) ug/L		1.0	1		10/13/20 22:54	1634-04-4				
Naphthalene	NE	) ug/L		1.0	1		10/13/20 22:54	4 91-20-3				
Styrene	NE	) ug/L		1.0	1		10/13/20 22:54	100-42-5				
1,1,1,2-Tetrachloroethane	NE			1.0	1		10/13/20 22:54	4 630-20-6				
1,1,2,2-Tetrachloroethane	NE			1.0	1		10/13/20 22:54	1 79-34-5				



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

Sample: TRIP BLANK	Lab ID: 924	99650006	Collected: 10/06/2	20 00:00	Received:	10/08/20 16:54	Matrix: Water	•
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
8260D MSV Low Level Landfill	Analytical Met	hod: EPA 82	:60D					
	Pace Analytica	al Services -	Charlotte					
Tetrachloroethene	ND	ug/L	1.0	1		10/13/20 22:5	4 127-18-4	
Toluene	ND	ug/L	1.0	1		10/13/20 22:5	4 108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		10/13/20 22:5	4 87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		10/13/20 22:5	4 120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		10/13/20 22:5	4 71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		10/13/20 22:5	4 79-00-5	
Trichloroethene	ND	ug/L	1.0	1		10/13/20 22:5	4 79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		10/13/20 22:5	4 75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		10/13/20 22:5	4 96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		10/13/20 22:5	4 108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		10/13/20 22:5	4 75-01-4	
Xylene (Total)	ND	ug/L	1.0	1		10/13/20 22:5	4 1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		10/13/20 22:5	4 179601-23-1	
o-Xylene	ND	ug/L	1.0	1		10/13/20 22:5	4 95-47-6	
Surrogates		-						
4-Bromofluorobenzene (S)	99	%	70-130	1		10/13/20 22:5	4 460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130	1		10/13/20 22:5	4 17060-07-0	
Toluene-d8 (S)	95	%	70-130	1		10/13/20 22:5	4 2037-26-5	



#### **QUALITY CONTROL DATA**

Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

QC Batch: 572126 Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92499650001, 92499650002, 92499650003, 92499650004, 92499650005

METHOD BLANK: 3030150 Matrix: Water

Associated Lab Samples: 92499650001, 92499650002, 92499650003, 92499650004, 92499650005

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Arsenic	ug/L	ND	30.0	10/09/20 18:09	
Barium	ug/L	ND	10.0	10/09/20 18:09	
Cadmium	ug/L	ND	10.0	10/09/20 18:09	
Chromium	ug/L	ND	10.0	10/09/20 18:09	
Lead	ug/L	ND	15.0	10/09/20 18:09	
Selenium	ug/L	ND	40.0	10/09/20 18:09	
Silver	ug/L	ND	10.0	10/09/20 18:09	

LABORATORY CONTROL SAMPLE: 3030 <sup>-</sup>	151
--	-----

Date: 10/15/2020 10:48 AM

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	1000	999	100	80-120	
Barium	ug/L	1000	1000	100	80-120	
Cadmium	ug/L	1000	1010	101	80-120	
Chromium	ug/L	1000	987	99	80-120	
Lead	ug/L	1000	1010	101	80-120	
Selenium	ug/L	1000	970	97	80-120	
Silver	ug/L	1000	985	99	80-120	

MATRIX SPIKE & MATRIX SF	PIKE DUPLIC	ATE: 3030	152		3030153							
			MS	MSD								
	9	2499650004	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Arsenic	ug/L	ND	1000	1000	995	1010	97	98	75-125	1	20	
Barium	ug/L	68.7	1000	1000	1060	1050	99	98	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	1000	989	100	99	75-125	1	20	
Chromium	ug/L	ND	1000	1000	955	967	95	97	75-125	1	20	
Lead	ug/L	ND	1000	1000	993	999	99	100	75-125	1	20	
Selenium	ug/L	ND	1000	1000	938	983	93	97	75-125	5	20	
Silver	ug/L	ND	1000	1000	972	958	97	96	75-125	1	20	

MATRIX SPIKE & MATRIX SI	PIKE DUPLIC	CATE: 3030	154		3030155							
			MS	MSD								
	9	2499466005	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Arsenic	ug/L	ND	1000	1000	996	1010	99	101	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



#### **QUALITY CONTROL DATA**

Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

MATRIX SPIKE & MATRIX	SPIKE DUPLIC	CATE: 3030	154 MS	MSD	3030155							
	9.	2499466005	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Barium	ug/L	55.8	1000	1000	1030	1030	97	98	75-125	1	20	
Cadmium	ug/L	ND	1000	1000	1010	1020	101	102	75-125	1	20	
Chromium	ug/L	ND	1000	1000	980	971	98	97	75-125	1	20	
Lead	ug/L	ND	1000	1000	1010	1020	101	102	75-125	1	20	
Selenium	ug/L	ND	1000	1000	941	1030	94	103	75-125	9	20	
Silver	ug/L	ND	1000	1000	976	984	97	98	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



#### **QUALITY CONTROL DATA**

Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

QC Batch: 572203 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92499650001, 92499650002, 92499650003, 92499650004, 92499650005

METHOD BLANK: 3030665 Matrix: Water

Associated Lab Samples: 92499650001, 92499650002, 92499650003, 92499650004, 92499650005

Blank Reporting

Parameter Units Result Limit Analyzed Qualifiers

Mercury ug/L ND 0.20 10/13/20 11:08

LABORATORY CONTROL SAMPLE: 3030666

Spike LCS LCS % Rec Conc. Result % Rec Limits Qualifiers Parameter Units ug/L Mercury 2.5 2.5 99 80-120

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3030667 3030668

MS MSD

92499650004 Spike Spike MS MSD MS MSD % Rec Max Parameter Units Conc. Conc. Result Result **RPD** RPD Qual Result % Rec % Rec Limits 20 Mercury ug/L 0.32 2.5 2.5 2.8 2.8 99 97 75-125 2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

QC Batch: 572622 Analysis Method: EPA 8260D

QC Batch Method: EPA 8260D Analysis Description: 8260D MSV Low Level Landfill

Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92499650006

METHOD BLANK: 3032697 Matrix: Water

Associated Lab Samples: 92499650006

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	10/13/20 22:36	
1,1,1-Trichloroethane	ug/L	ND	1.0	10/13/20 22:36	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	10/13/20 22:36	
1,1,2-Trichloroethane	ug/L	ND	1.0	10/13/20 22:36	
1,1-Dichloroethane	ug/L	ND	1.0	10/13/20 22:36	
1,1-Dichloroethene	ug/L	ND	1.0	10/13/20 22:36	
1,1-Dichloropropene	ug/L	ND	1.0	10/13/20 22:36	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	10/13/20 22:36	
1,2,3-Trichloropropane	ug/L	ND	1.0	10/13/20 22:36	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	10/13/20 22:36	
1,2-Dibromo-3-chloropropane	ug/L	ND	5.0	10/13/20 22:36	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	10/13/20 22:36	
1,2-Dichlorobenzene	ug/L	ND	1.0	10/13/20 22:36	
1,2-Dichloroethane	ug/L	ND	1.0	10/13/20 22:36	
1,2-Dichloropropane	ug/L	ND	1.0	10/13/20 22:36	
1,3-Dichlorobenzene	ug/L	ND	1.0	10/13/20 22:36	
1,3-Dichloropropane	ug/L	ND	1.0	10/13/20 22:36	
1,4-Dichlorobenzene	ug/L	ND	1.0	10/13/20 22:36	
2,2-Dichloropropane	ug/L	ND	1.0	10/13/20 22:36	
2-Butanone (MEK)	ug/L	ND	5.0	10/13/20 22:36	
2-Chlorotoluene	ug/L	ND	1.0	10/13/20 22:36	
2-Hexanone	ug/L	ND	5.0	10/13/20 22:36	
4-Chlorotoluene	ug/L	ND	1.0	10/13/20 22:36	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	10/13/20 22:36	
Acetone	ug/L	ND	25.0	10/13/20 22:36	
Benzene	ug/L	ND	1.0	10/13/20 22:36	
Bromobenzene	ug/L	ND	1.0	10/13/20 22:36	
Bromochloromethane	ug/L	ND	1.0	10/13/20 22:36	
Bromodichloromethane	ug/L	ND	1.0	10/13/20 22:36	
Bromoform	ug/L	ND	1.0	10/13/20 22:36	v1
Bromomethane	ug/L	ND	2.0	10/13/20 22:36	v2
Carbon tetrachloride	ug/L	ND	1.0	10/13/20 22:36	
Chlorobenzene	ug/L	ND	1.0	10/13/20 22:36	
Chloroethane	ug/L	ND	1.0	10/13/20 22:36	
Chloroform	ug/L	ND	5.0	10/13/20 22:36	
Chloromethane	ug/L	ND	1.0	10/13/20 22:36	
cis-1,2-Dichloroethene	ug/L	ND	1.0	10/13/20 22:36	
cis-1,3-Dichloropropene	ug/L	ND	1.0	10/13/20 22:36	
Dibromochloromethane	ug/L	ND	1.0	10/13/20 22:36	
Dibromomethane	ug/L	ND	1.0	10/13/20 22:36	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

METHOD BLANK: 3032697 Matrix: Water

Associated Lab Samples: 92499650006

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/L	ND ND	1.0	10/13/20 22:36	
Diisopropyl ether	ug/L	ND	1.0	10/13/20 22:36	
Ethylbenzene	ug/L	ND	1.0	10/13/20 22:36	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	10/13/20 22:36	
m&p-Xylene	ug/L	ND	2.0	10/13/20 22:36	
Methyl-tert-butyl ether	ug/L	ND	1.0	10/13/20 22:36	
Methylene Chloride	ug/L	ND	5.0	10/13/20 22:36	
Naphthalene	ug/L	ND	1.0	10/13/20 22:36	
o-Xylene	ug/L	ND	1.0	10/13/20 22:36	
p-Isopropyltoluene	ug/L	ND	1.0	10/13/20 22:36	
Styrene	ug/L	ND	1.0	10/13/20 22:36	
Tetrachloroethene	ug/L	ND	1.0	10/13/20 22:36	
Toluene	ug/L	ND	1.0	10/13/20 22:36	
trans-1,2-Dichloroethene	ug/L	ND	1.0	10/13/20 22:36	
trans-1,3-Dichloropropene	ug/L	ND	1.0	10/13/20 22:36	
Trichloroethene	ug/L	ND	1.0	10/13/20 22:36	
Trichlorofluoromethane	ug/L	ND	1.0	10/13/20 22:36	
Vinyl acetate	ug/L	ND	2.0	10/13/20 22:36	
Vinyl chloride	ug/L	ND	1.0	10/13/20 22:36	
Xylene (Total)	ug/L	ND	1.0	10/13/20 22:36	
1,2-Dichloroethane-d4 (S)	%	112	70-130	10/13/20 22:36	
4-Bromofluorobenzene (S)	%	100	70-130	10/13/20 22:36	
Toluene-d8 (S)	%	94	70-130	10/13/20 22:36	

LABORATORY CONTROL SAMPLE:	3032698					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	56.9	114	70-130	
1,1,1-Trichloroethane	ug/L	50	56.7	113	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	50.5	101	70-130	
1,1,2-Trichloroethane	ug/L	50	50.3	101	70-130	
1,1-Dichloroethane	ug/L	50	51.5	103	70-130	
1,1-Dichloroethene	ug/L	50	55.9	112	70-132	
1,1-Dichloropropene	ug/L	50	48.4	97	70-131	
1,2,3-Trichlorobenzene	ug/L	50	51.8	104	70-134	
1,2,3-Trichloropropane	ug/L	50	52.3	105	70-130	
1,2,4-Trichlorobenzene	ug/L	50	55.2	110	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	55.9	112	70-132	
1,2-Dibromoethane (EDB)	ug/L	50	52.6	105	70-130	
1,2-Dichlorobenzene	ug/L	50	52.6	105	70-130	
1,2-Dichloroethane	ug/L	50	55.1	110	70-130	
1,2-Dichloropropane	ug/L	50	49.5	99	70-130	
1,3-Dichlorobenzene	ug/L	50	49.9	100	70-130	
1,3-Dichloropropane	ug/L	50	49.2	98	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

LABORATORY CONTROL SAMPLE	E: 3032698	Spike	LCS	LCS	% Rec
Parameter	Units	Conc.	Result	% Rec	Limits Qualifiers
1,4-Dichlorobenzene	ug/L		53.0	106	70-130
2,2-Dichloropropane	ug/L	50	55.4	111	70-130
2-Butanone (MEK)	ug/L	100	104	104	70-133
2-Chlorotoluene	ug/L	50	50.9	102	70-130
2-Hexanone	ug/L	100	117	117	70-130
1-Chlorotoluene	ug/L	50	51.0	102	70-130
4-Methyl-2-pentanone (MIBK)	ug/L	100	109	109	70-130
Acetone	ug/L	100	112	112	70-144
Benzene	ug/L	50	49.0	98	70-130
Bromobenzene	ug/L	50	52.3	105	70-130
Bromochloromethane	ug/L	50	50.7	101	70-130
Bromodichloromethane	ug/L	50	49.8	100	70-130
Bromoform	ug/L	50	59.6	119	70-131 v1
Bromomethane	ug/L	50	40.0	80	30-177 v3
Carbon tetrachloride	ug/L	50	60.4	121	70-130
Chlorobenzene	ug/L	50	51.7	103	70-130
Chloroethane	ug/L	50	44.3	89	46-131
Chloroform	ug/L	50	54.6	109	70-130
Chloromethane	ug/L	50	46.8	94	49-130
is-1,2-Dichloroethene	ug/L	50	52.3	105	70-130
is-1,3-Dichloropropene	ug/L	50	54.0	108	70-130
Dibromochloromethane	ug/L	50	56.8	114	70-130
Dibromomethane	ug/L	50	55.3	111	70-130
Dichlorodifluoromethane	ug/L	50	47.2	94	52-134
Diisopropyl ether	ug/L	50	50.8	102	70-131
Ethylbenzene	ug/L	50	49.7	99	70-130
Hexachloro-1,3-butadiene	ug/L	50	54.0	108	70-131
n&p-Xylene	ug/L	100	102	102	70-130
Methyl-tert-butyl ether	ug/L	50	50.2	100	70-130
Methylene Chloride	ug/L	50	51.7	103	68-130
Naphthalene	ug/L	50	50.2	100	70-133
o-Xylene	ug/L	50	49.5	99	70-130
o-Isopropyltoluene	ug/L	50	48.9	98	70-130
Styrene	ug/L	50	52.5	105	70-130
Tetrachloroethene	ug/L	50	53.7	107	70-130
Toluene	ug/L	50	48.6	97	70-130
rans-1,2-Dichloroethene	ug/L	50	52.9	106	70-130
rans-1,3-Dichloropropene	ug/L	50	54.6	109	70-130
richloroethene	ug/L	50	51.6	103	70-130
richlorofluoromethane	ug/L	50	52.2	104	61-130
/inyl acetate	ug/L	100	115	115	70-140
/inyl chloride	ug/L	50	42.4	85	59-142
(ylene (Total)	ug/L	150	151	101	70-130
,2-Dichloroethane-d4 (S)	%	100	101	99	70-130
-Bromofluorobenzene (S)	%			104	70-130
Foluene-d8 (S)	%			97	70-130

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

## **REPORT OF LABORATORY ANALYSIS**



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

MATRIX SPIKE SAMPLE:	3032699	92499060012	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	20	21.1	106	70-135	
1,1,1-Trichloroethane	ug/L	ND	20	22.6	113	70-148	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	17.8	89	70-131	
1,1,2-Trichloroethane	ug/L	ND	20	21.4	107	70-136	
1,1-Dichloroethane	ug/L	ND	20	19.4	97	70-147	
I,1-Dichloroethene	ug/L	ND	20	20.8	104	70-158	
I,1-Dichloropropene	ug/L	ND	20	19.5	98	70-149	
I,2,3-Trichlorobenzene	ug/L	ND	20	19.5	98	68-140	
1,2,3-Trichloropropane	ug/L	ND	20	19.0	95	67-137	
1,2,4-Trichlorobenzene	ug/L	ND	20	19.4	97	70-139	
1,2-Dibromo-3-chloropropane	ug/L	ND	20	19.6	98	69-136	
I,2-Dibromoethane (EDB)	ug/L	ND	20	20.6	103	70-137	
,2-Dichlorobenzene	ug/L	ND	20	19.6	98	70-133	
I,2-Dichloroethane	ug/L	ND	20	21.3	106	67-138	
I,2-Dichloropropane	ug/L	ND	20	19.4	97	70-138	
I,3-Dichlorobenzene	ug/L	ND	20	19.9	99	70-133	
,3-Dichloropropane	ug/L	ND	20	19.7	99	70-136	
,4-Dichlorobenzene	ug/L	ND	20	19.6	98	70-133	
2,2-Dichloropropane	ug/L	ND	20	21.2	106	52-155	
2-Butanone (MEK)	ug/L	ND	40	34.9	87	61-147	
2-Chlorotoluene	ug/L	ND	20	20.0	100	70-141	
2-Hexanone	ug/L	ND	40	34.9	87	67-139	
I-Chlorotoluene	ug/L	ND	20	19.6	98	70-135	
I-Methyl-2-pentanone (MIBK)	ug/L	ND	40	35.4	89	67-136	
Acetone	ug/L	ND	40	37.0	93	55-159	
Benzene	ug/L	ND	20	20.2	101	67-150	
Bromobenzene	ug/L	ND	20	20.1	101	70-134	
Bromochloromethane	ug/L	ND	20	20.4	102	70-146	
Bromodichloromethane	ug/L	ND	20	20.3	102	70-138	
Bromoform	ug/L	ND	20	20.8	104	57-138	
Bromomethane	ug/L	ND	20	20.2	101	10-200	
Carbon tetrachloride	ug/L	ND	20	25.3	126	70-147	
Chlorobenzene	ug/L	ND	20	20.3	101	70-137	
Chloroethane	ug/L	ND	20	16.9	84	51-166 v3	3
Chloroform	ug/L	ND	20	21.3	104	70-144	,
Chloromethane	ug/L	ND	20	14.9	75	24-161 v3	3
sis-1,2-Dichloroethene	ug/L	ND	20	19.8	99	67-148	,
sis-1,3-Dichloropropene	- "	ND	20	21.5	108	70-142	
Dibromochloromethane	ug/L ug/L	ND	20	21.3	106	68-138	
Dibromomethane	ug/L	ND	20	22.4	112	70-134	
Dichlorodifluoromethane	ug/L	ND	20	16.9	85	43-155 v3	3
Diisopropyl ether	ug/L	ND	20	16.7	83	65-146	,
Ethylbenzene	_	ND ND	20	20.2	101	68-143	
•	ug/L	ND ND		20.2			
Hexachloro-1,3-butadiene	ug/L	ND ND	20 40	41.1	106 103	62-151 53-157	
n&p-Xylene Methyl-tert-butyl ether	ug/L	ND ND					
,	ug/L		20	18.2	91	59-156	
Methylene Chloride	ug/L	ND	20	18.1	90	64-148	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

MATRIX SPIKE SAMPLE:	3032699						
		92499060012	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Naphthalene	ug/L	ND	20	18.0	90	57-150	
o-Xylene	ug/L	ND	20	19.9	100	68-143	
p-Isopropyltoluene	ug/L	ND	20	19.8	99	70-141	
Styrene	ug/L	ND	20	21.0	105	70-136	
Tetrachloroethene	ug/L	25.6	20	46.0	102	70-139	
Toluene	ug/L	ND	20	20.3	101	47-157	
trans-1,2-Dichloroethene	ug/L	ND	20	20.4	102	70-149	
trans-1,3-Dichloropropene	ug/L	ND	20	20.8	104	70-138	
Trichloroethene	ug/L	16.6	20	38.6	110	70-149	
Trichlorofluoromethane	ug/L	ND	20	19.6	98	61-154	
Vinyl acetate	ug/L	ND	40	36.1	90	48-156	
Vinyl chloride	ug/L	ND	20	14.9	75	55-172 v3	3
Xylene (Total)	ug/L	ND	60	61.0	102	66-145	
1,2-Dichloroethane-d4 (S)	%				101	70-130	
4-Bromofluorobenzene (S)	%				101	70-130	
Toluene-d8 (S)	%				99	70-130	

SAMPLE DUPLICATE: 3034619		92499060050	Dup		Max	
Parameter	Units	Result	Result	RPD	RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L		ND		30	
1,1,1-Trichloroethane	ug/L	ND	ND		30	
1,1,2,2-Tetrachloroethane	ug/L	ND	ND		30	
1,1,2-Trichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethane	ug/L	ND	ND		30	
1,1-Dichloroethene	ug/L	ND	ND		30	
1,1-Dichloropropene	ug/L	ND	ND		30	
1,2,3-Trichlorobenzene	ug/L	ND	ND		30	
1,2,3-Trichloropropane	ug/L	ND	ND		30	
1,2,4-Trichlorobenzene	ug/L	ND	ND		30	
1,2-Dibromo-3-chloropropane	ug/L	ND	ND		30	
1,2-Dibromoethane (EDB)	ug/L	ND	ND		30	
1,2-Dichlorobenzene	ug/L	ND	ND		30	
1,2-Dichloroethane	ug/L	ND	ND		30	
1,2-Dichloropropane	ug/L	ND	ND		30	
1,3-Dichlorobenzene	ug/L	ND	ND		30	
1,3-Dichloropropane	ug/L	ND	ND		30	
1,4-Dichlorobenzene	ug/L	ND	ND		30	
2,2-Dichloropropane	ug/L	ND	ND		30	
2-Butanone (MEK)	ug/L	ND	ND		30	
2-Chlorotoluene	ug/L	ND	ND		30	
2-Hexanone	ug/L	ND	ND		30	
4-Chlorotoluene	ug/L	ND	ND		30	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	ND		30	
Acetone	ug/L	ND	ND		30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

SAMPLE DUPLICATE: 3034619						
		92499060050	Dup		Max	
Parameter	Units	Result	Result	RPD	RPD	Qualifiers
Benzene	ug/L	ND	ND		30	)
Bromobenzene	ug/L	ND	ND		30	)
Bromochloromethane	ug/L	ND	ND		30	)
Bromodichloromethane	ug/L	ND	ND		30	)
Bromoform	ug/L	ND	ND		30	)
Bromomethane	ug/L	ND	ND		30	)
Carbon tetrachloride	ug/L	ND	ND		30	)
Chlorobenzene	ug/L	ND	ND		30	)
Chloroethane	ug/L	ND	ND		30	) v2
Chloroform	ug/L	ND	ND		30	)
Chloromethane	ug/L	ND	ND		30	) v2
cis-1,2-Dichloroethene	ug/L	ND	ND		30	)
cis-1,3-Dichloropropene	ug/L	ND	ND		30	)
Dibromochloromethane	ug/L	ND	ND		30	)
Dibromomethane	ug/L	ND	ND		30	)
Dichlorodifluoromethane	ug/L	ND	ND		30	) v2
Diisopropyl ether	ug/L	ND	ND		30	)
Ethylbenzene	ug/L	ND	ND		30	)
Hexachloro-1,3-butadiene	ug/L	ND	ND		30	)
m&p-Xylene	ug/L	ND	ND		30	)
Methyl-tert-butyl ether	ug/L	ND	ND		30	)
Methylene Chloride	ug/L	ND	ND		30	)
Naphthalene	ug/L	ND	ND		30	)
o-Xylene	ug/L	ND	ND		30	)
p-Isopropyltoluene	ug/L	ND	ND		30	)
Styrene	ug/L	ND	ND		30	)
Tetrachloroethene	ug/L	15.3	ND		30	)
Toluene	ug/L	ND	ND		30	)
trans-1,2-Dichloroethene	ug/L	ND	ND		30	)
trans-1,3-Dichloropropene	ug/L	ND	ND		30	)
Trichloroethene	ug/L	8.8	ND		30	)
Trichlorofluoromethane	ug/L	ND	ND		30	)
Vinyl acetate	ug/L	ND	ND		30	)
Vinyl chloride	ug/L	ND	ND		30	) v2
Xylene (Total)	ug/L	ND	ND		30	)
1,2-Dichloroethane-d4 (S)	%	117	98			
4-Bromofluorobenzene (S)	%	100	102			
Toluene-d8 (S)	%	94	99			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

QC Batch: 572627 Analysis Method: EPA 8260D

QC Batch Method: EPA 8260D Analysis Description: 8260D MSV Low Level Landfill

Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92499650001, 92499650002, 92499650004, 92499650005

METHOD BLANK: 3032719 Matrix: Water
Associated Lab Samples: 92499650001, 92499650002, 92499650004, 92499650005

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	10/13/20 14:16	
1,1,1-Trichloroethane	ug/L	ND	1.0	10/13/20 14:16	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	10/13/20 14:16	
1,1,2-Trichloroethane	ug/L	ND	1.0	10/13/20 14:16	
1,1-Dichloroethane	ug/L	ND	1.0	10/13/20 14:16	
1,1-Dichloroethene	ug/L	ND	1.0	10/13/20 14:16	
1,1-Dichloropropene	ug/L	ND	1.0	10/13/20 14:16	
1,2,3-Trichlorobenzene	ug/L	1.0	1.0	10/13/20 14:16	
1,2,3-Trichloropropane	ug/L	ND	1.0	10/13/20 14:16	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	10/13/20 14:16	
1,2-Dibromo-3-chloropropane	ug/L	ND	5.0	10/13/20 14:16	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	10/13/20 14:16	
1,2-Dichlorobenzene	ug/L	ND	1.0	10/13/20 14:16	
1,2-Dichloroethane	ug/L	ND	1.0	10/13/20 14:16	
1,2-Dichloropropane	ug/L	ND	1.0	10/13/20 14:16	
1,3-Dichlorobenzene	ug/L	ND	1.0	10/13/20 14:16	
1,3-Dichloropropane	ug/L	ND	1.0	10/13/20 14:16	
1,4-Dichlorobenzene	ug/L	ND	1.0	10/13/20 14:16	
2,2-Dichloropropane	ug/L	ND	1.0	10/13/20 14:16	
2-Butanone (MEK)	ug/L	ND	5.0	10/13/20 14:16	
2-Chlorotoluene	ug/L	ND	1.0	10/13/20 14:16	
2-Hexanone	ug/L	ND	5.0	10/13/20 14:16	
4-Chlorotoluene	ug/L	ND	1.0	10/13/20 14:16	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	10/13/20 14:16	
Acetone	ug/L	ND	25.0	10/13/20 14:16	
Benzene	ug/L	ND	1.0	10/13/20 14:16	
Bromobenzene	ug/L	ND	1.0	10/13/20 14:16	
Bromochloromethane	ug/L	ND	1.0	10/13/20 14:16	
Bromodichloromethane	ug/L	ND	1.0	10/13/20 14:16	
Bromoform	ug/L	ND	1.0	10/13/20 14:16	
Bromomethane	ug/L	ND	2.0	10/13/20 14:16	
Carbon tetrachloride	ug/L	ND	1.0	10/13/20 14:16	
Chlorobenzene	ug/L	ND	1.0	10/13/20 14:16	
Chloroethane	ug/L	ND	1.0	10/13/20 14:16	
Chloroform	ug/L	ND	5.0	10/13/20 14:16	
Chloromethane	ug/L	ND	1.0	10/13/20 14:16	
cis-1,2-Dichloroethene	ug/L	ND	1.0	10/13/20 14:16	
cis-1,3-Dichloropropene	ug/L	ND	1.0	10/13/20 14:16	
Dibromochloromethane	ug/L	ND	1.0	10/13/20 14:16	
Dibromomethane	ug/L	ND	1.0	10/13/20 14:16	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

## **REPORT OF LABORATORY ANALYSIS**



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

METHOD BLANK: 3032719 Matrix: Water
Associated Lab Samples: 92499650001, 92499650002, 92499650004, 92499650005

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/L	ND	1.0	10/13/20 14:16	
Diisopropyl ether	ug/L	ND	1.0	10/13/20 14:16	
Ethylbenzene	ug/L	ND	1.0	10/13/20 14:16	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	10/13/20 14:16	
m&p-Xylene	ug/L	ND	2.0	10/13/20 14:16	
Methyl-tert-butyl ether	ug/L	ND	1.0	10/13/20 14:16	
Methylene Chloride	ug/L	ND	5.0	10/13/20 14:16	
Naphthalene	ug/L	ND	1.0	10/13/20 14:16	
o-Xylene	ug/L	ND	1.0	10/13/20 14:16	
p-Isopropyltoluene	ug/L	ND	1.0	10/13/20 14:16	
Styrene	ug/L	ND	1.0	10/13/20 14:16	
Tetrachloroethene	ug/L	ND	1.0	10/13/20 14:16	
Toluene	ug/L	ND	1.0	10/13/20 14:16	
trans-1,2-Dichloroethene	ug/L	ND	1.0	10/13/20 14:16	
trans-1,3-Dichloropropene	ug/L	ND	1.0	10/13/20 14:16	
Trichloroethene	ug/L	ND	1.0	10/13/20 14:16	
Trichlorofluoromethane	ug/L	ND	1.0	10/13/20 14:16	
Vinyl acetate	ug/L	ND	2.0	10/13/20 14:16	
Vinyl chloride	ug/L	ND	1.0	10/13/20 14:16	
Xylene (Total)	ug/L	ND	1.0	10/13/20 14:16	
1,2-Dichloroethane-d4 (S)	%	103	70-130	10/13/20 14:16	
4-Bromofluorobenzene (S)	%	97	70-130	10/13/20 14:16	
Toluene-d8 (S)	%	101	70-130	10/13/20 14:16	

LABORATORY CONTROL SAMPLE:	3032720					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	51.3	103	70-130	
1,1,1-Trichloroethane	ug/L	50	51.8	104	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	52.8	106	70-130	
1,1,2-Trichloroethane	ug/L	50	52.5	105	70-130	
1,1-Dichloroethane	ug/L	50	51.3	103	70-130	
1,1-Dichloroethene	ug/L	50	51.8	104	70-132	
1,1-Dichloropropene	ug/L	50	52.2	104	70-131	
1,2,3-Trichlorobenzene	ug/L	50	56.9	114	70-134	
1,2,3-Trichloropropane	ug/L	50	53.4	107	70-130	
1,2,4-Trichlorobenzene	ug/L	50	57.1	114	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	62.7	125	70-132	
1,2-Dibromoethane (EDB)	ug/L	50	53.5	107	70-130	
1,2-Dichlorobenzene	ug/L	50	53.1	106	70-130	
1,2-Dichloroethane	ug/L	50	48.8	98	70-130	
1,2-Dichloropropane	ug/L	50	51.1	102	70-130	
1,3-Dichlorobenzene	ug/L	50	52.7	105	70-130	
1,3-Dichloropropane	ug/L	50	52.8	106	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

## **REPORT OF LABORATORY ANALYSIS**



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

LABORATORY CONTROL SAMPLE:	3032720	Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
,4-Dichlorobenzene	ug/L		53.1	106	70-130	
2,2-Dichloropropane	ug/L	50	50.4	101	70-130	
2-Butanone (MEK)	ug/L	100	110	110	70-133	
2-Chlorotoluene	ug/L	50	53.1	106	70-130	
2-Hexanone	ug/L	100	112	112	70-130	
1-Chlorotoluene	ug/L	50	52.5	105	70-130	
1-Methyl-2-pentanone (MIBK)	ug/L	100	110	110	70-130	
Acetone	ug/L	100	116	116	70-144	
Benzene	ug/L	50	50.6	101	70-130	
Bromobenzene	ug/L	50	52.0	104	70-130	
Bromochloromethane	ug/L	50	50.1	100	70-130	
Bromodichloromethane	ug/L	50	49.8	100	70-130	
Bromoform	ug/L	50	50.4	101	70-131	
Bromomethane	ug/L	50	49.0	98	30-177	
Carbon tetrachloride	ug/L	50	50.7	101	70-130	
Chlorobenzene	ug/L	50	50.6	101	70-130	
Chloroethane	ug/L	50	39.2	78	46-131	
Chloroform	ug/L	50	50.3	101	70-130	
Chloromethane	ug/L	50	46.7	93	49-130	
is-1,2-Dichloroethene	ug/L	50	50.0	100	70-130	
is-1,3-Dichloropropene	ug/L	50	53.3	107	70-130	
Dibromochloromethane	ug/L	50	53.1	106	70-130	
Dibromomethane	ug/L	50	52.7	105	70-130	
Dichlorodifluoromethane	ug/L	50	45.1	90	52-134	
Diisopropyl ether	ug/L	50	49.7	99	70-131	
Ethylbenzene	ug/L	50	49.9	100	70-130	
Hexachloro-1,3-butadiene	ug/L	50	55.0	110	70-131	
n&p-Xylene	ug/L	100	101	101	70-130	
Methyl-tert-butyl ether	ug/L	50	51.4	103	70-130	
Methylene Chloride	ug/L	50	47.7	95	68-130	
Naphthalene	ug/L	50	61.0	122	70-133	
o-Xylene	ug/L	50	51.2	102	70-130	
p-kylene p-Isopropyltoluene	ug/L	50	53.4	107	70-130	
Styrene	ug/L	50	51.5	107	70-130	
Tetrachloroethene	ug/L	50 50	49.1	98	70-130	
Toluene	ug/L	50 50	50.9	102	70-130	
rans-1,2-Dichloroethene	ug/L	50 50	51.9	104	70-130	
rans-1,3-Dichloropropene	- "	50	53.1	104	70-130	
richloroethene	ug/L ug/L	50 50	51.5	103	70-130	
richlorofluoromethane	ug/L	50	43.9	88	61-130	
/inyl acetate	ug/L	100	118	118	70-140	
/inyl acetate /inyl chloride	ug/L	50	46.1	92	59-142	
(ylene (Total)	ug/L ug/L	150	153	102	70-130	
	-	100	100			
,2-Dichloroethane-d4 (S) -Bromofluorobenzene (S)	% %			97 99	70-130 70-130	
r-Diomonuolobenzene (3)	70			99	10-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

## **REPORT OF LABORATORY ANALYSIS**



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

MATRIX SPIKE & MATRIX SI	PIKE DUPL	ICATE: 3032	721		3032722							
			MS	MSD								
		92499650004	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qua
,1,1,2-Tetrachloroethane	ug/L	ND	20	20	21.4	19.8	107	99	70-135	8	30	
,1,1-Trichloroethane	ug/L	ND	20	20	21.6	21.1	108	105	70-148	3	30	
,1,2,2-Tetrachloroethane	ug/L	ND	20	20	22.0	21.1	110	105	70-131	4	30	
,1,2-Trichloroethane	ug/L	ND	20	20	22.0	21.0	110	105	70-136	4	30	
,1-Dichloroethane	ug/L	ND	20	20	21.6	21.1	108	105	70-147	3	30	
,1-Dichloroethene	ug/L	ND	20	20	23.6	22.1	115	108	70-158	7	30	
,1-Dichloropropene	ug/L	ND	20	20	23.7	22.9	119	114	70-149	4	30	
,2,3-Trichlorobenzene	ug/L	ND	20	20	20.8	20.1	104	101	68-140	3	30	
,2,3-Trichloropropane	ug/L	ND	20	20	21.6	21.9	108	109	67-137	1	30	
,2,4-Trichlorobenzene	ug/L	ND	20	20	21.0	19.5	105	98	70-139	7	30	
,2-Dibromo-3-	ug/L	ND	20	20	21.3	19.2	107	96	69-136	10	30	
hloropropane												
,2-Dibromoethane (EDB)	ug/L	ND	20	20	22.0	21.5	110	107	70-137	2		
,2-Dichlorobenzene	ug/L	ND	20	20	21.7	20.3	108	102	70-133	7		
,2-Dichloroethane	ug/L	ND	20	20	20.0	18.6	100	93	67-138	7		
,2-Dichloropropane	ug/L	ND	20	20	23.1	22.5	116	112	70-138	3		
,3-Dichlorobenzene	ug/L	ND	20	20	22.1	21.4	110	107	70-133	3		
,3-Dichloropropane	ug/L	ND	20	20	23.7	23.1	119	116	70-136	3		
4-Dichlorobenzene	ug/L	ND	20	20	22.5	21.2	113	106	70-133	6	30	
2-Dichloropropane	ug/L	ND	20	20	24.5	23.2	123	116	52-155	5	30	
-Butanone (MEK)	ug/L	ND	40	40	38.4	38.0	96	95	61-147	1	30	
-Chlorotoluene	ug/L	ND	20	20	23.0	22.1	115	111	70-141	4	30	
-Hexanone	ug/L	ND	40	40	39.8	39.5	100	99	67-139	1	30	
-Chlorotoluene	ug/L	ND	20	20	22.5	21.8	113	109	70-135	3		
-Methyl-2-pentanone MIBK)	ug/L	ND	40	40	37.5	36.2	94	91	67-136	3		
cetone	ug/L	ND	40	40	38.6	37.3	96	93	55-159	3		
enzene	ug/L	ND	20	20	22.7	22.3	113	112	67-150	2		
romobenzene	ug/L	ND	20	20	22.1	21.0	110	105	70-134	5	30	
romochloromethane	ug/L	ND	20	20	23.2	21.4	116	107	70-146	8	30	
romodichloromethane	ug/L	ND	20	20	19.6	19.2	98	96	70-138	2	30	
romoform	ug/L	ND	20	20	19.0	17.6	95	88	57-138	8	30	
romomethane	ug/L	ND	20	20	21.3	21.6	107	108	10-200	1	30	IK
arbon tetrachloride	ug/L	ND	20	20	20.2	20.5	101	103	70-147	2		
hlorobenzene	ug/L	ND	20	20	22.6	21.8	113	109	70-137	3		
hloroethane	ug/L	ND	20	20	24.2	23.0	121	115	51-166	5	30	
hloroform	ug/L	ND	20	20	22.4	21.9	109	106	70-144	3		
hloromethane	ug/L	ND	20	20	18.4	17.4	92	87	24-161	6		
s-1,2-Dichloroethene	ug/L	ND	20	20	21.2	20.3	106	102	67-148	4	30	
is-1,3-Dichloropropene	ug/L	ND	20	20	23.2	21.6	116	108	70-142	7	30	
ibromochloromethane	ug/L	ND	20	20	20.9	20.1	105	100	68-138	4	30	
ibromomethane	ug/L	ND	20	20	21.3	20.3	107	101	70-134	5		
ichlorodifluoromethane	ug/L	ND	20	20	16.9	16.5	84	83	43-155	2		
iisopropyl ether	ug/L	ND	20	20	19.2	17.9	96	90	65-146	7	30	
thylbenzene	ug/L	ND	20	20	21.8	21.7	109	109	68-143	0		
lexachloro-1,3-butadiene	ug/L	ND	20	20	22.1	22.7	110	114	62-151	3	30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

MATRIX SPIKE & MATRIX SF	PIKE DUPLI	CATE: 3032	721 MS	MSD	3032722							
	g	92499650004	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qua
m&p-Xylene	ug/L	ND	40	40	43.9	44.3	110	111	53-157	1	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	22.3	20.7	108	101	59-156	7	30	
Methylene Chloride	ug/L	ND	20	20	19.7	18.7	99	93	64-148	5	30	
Naphthalene	ug/L	ND	20	20	21.5	21.0	106	104	57-150	2	30	
o-Xylene	ug/L	ND	20	20	22.1	21.6	111	108	68-143	3	30	
p-Isopropyltoluene	ug/L	ND	20	20	22.2	21.4	111	107	70-141	4	30	
Styrene	ug/L	ND	20	20	21.6	21.5	108	108	70-136	0	30	
Tetrachloroethene	ug/L	ND	20	20	21.1	21.4	106	107	70-139	1	30	
Toluene	ug/L	ND	20	20	22.2	21.6	111	108	47-157	3	30	
trans-1,2-Dichloroethene	ug/L	ND	20	20	22.4	21.5	112	107	70-149	4	30	
trans-1,3-Dichloropropene	ug/L	ND	20	20	22.2	21.2	111	106	70-138	5	30	
Trichloroethene	ug/L	ND	20	20	21.5	21.5	107	108	70-149	0	30	
Trichlorofluoromethane	ug/L	ND	20	20	19.3	19.0	96	95	61-154	2	30	
Vinyl acetate	ug/L	ND	40	40	46.3	43.0	116	107	48-156	7	30	
Vinyl chloride	ug/L	ND	20	20	19.5	18.9	97	95	55-172	3	30	
Xylene (Total)	ug/L	ND	60	60	66.0	65.9	110	110	66-145	0	30	
1,2-Dichloroethane-d4 (S)	%						91	89	70-130			
4-Bromofluorobenzene (S)	%						99	99	70-130			
Toluene-d8 (S)	%						96	98	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

QC Batch: 572737 Analysis Method: EPA 8082A
QC Batch Method: EPA 3510C Analysis Description: 8082 GCS PCB

Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92499650001, 92499650002, 92499650003, 92499650004, 92499650005

METHOD BLANK: 3033080 Matrix: Water

Associated Lab Samples: 92499650001, 92499650002, 92499650003, 92499650004, 92499650005

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	ND	0.50	10/15/20 03:03	
PCB-1221 (Aroclor 1221)	ug/L	ND	0.50	10/15/20 03:03	
PCB-1232 (Aroclor 1232)	ug/L	ND	0.50	10/15/20 03:03	
PCB-1242 (Aroclor 1242)	ug/L	ND	0.50	10/15/20 03:03	
PCB-1248 (Aroclor 1248)	ug/L	ND	0.50	10/15/20 03:03	
PCB-1254 (Aroclor 1254)	ug/L	ND	0.50	10/15/20 03:03	
PCB-1260 (Aroclor 1260)	ug/L	ND	0.50	10/15/20 03:03	
Decachlorobiphenyl (S)	%	39	10-181	10/15/20 03:03	

LABORATORY CONTROL SAMPLE: 3033081

Date: 10/15/2020 10:48 AM

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L		3.7	73	41-137	
PCB-1260 (Aroclor 1260)	ug/L	5	3.5	71	42-156	
Decachlorobiphenyl (S)	%			47	10-181	

MATRIX SPIKE & MATRIX SF	PIKE DUPLI	CATE: 3033	082		3033083							
	Ç	92499650004	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
PCB-1016 (Aroclor 1016)	ug/L	ND	5	5	2.5	2.8	50	55	22-145	10	30	
PCB-1260 (Aroclor 1260)	ug/L	ND	5	5	2.7	2.9	55	59	10-167	7	30	
Decachlorobiphenyl (S)	%						47	52	10-181			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

QC Batch: 572436 Analysis Method: EPA 8270E

QC Batch Method: EPA 3510C Analysis Description: 8270E Water MSSV RVE

Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92499650001

METHOD BLANK: 3031696 Matrix: Water

Associated Lab Samples: 92499650001

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/L	ND	10.0	10/12/20 21:50	
1,2-Dichlorobenzene	ug/L	ND	10.0	10/12/20 21:50	
1,3-Dichlorobenzene	ug/L	ND	10.0	10/12/20 21:50	
1,4-Dichlorobenzene	ug/L	ND	10.0	10/12/20 21:50	
1-Methylnaphthalene	ug/L	ND	10.0	10/12/20 21:50	
2,2'-Oxybis(1-chloropropane)	ug/L	ND	10.0	10/12/20 21:50	
2,4,5-Trichlorophenol	ug/L	ND	10.0	10/12/20 21:50	
2,4,6-Trichlorophenol	ug/L	ND	10.0	10/12/20 21:50	
2,4-Dichlorophenol	ug/L	ND	10.0	10/12/20 21:50	
2,4-Dimethylphenol	ug/L	ND	10.0	10/12/20 21:50	
2,4-Dinitrophenol	ug/L	ND	50.0	10/12/20 21:50	
2,4-Dinitrotoluene	ug/L	ND	10.0	10/12/20 21:50	
2,6-Dinitrotoluene	ug/L	ND	10.0	10/12/20 21:50	
2-Chloronaphthalene	ug/L	ND	10.0	10/12/20 21:50	
2-Chlorophenol	ug/L	ND	10.0	10/12/20 21:50	
2-Methylnaphthalene	ug/L	ND	10.0	10/12/20 21:50	
2-Methylphenol(o-Cresol)	ug/L	ND	10.0	10/12/20 21:50	
2-Nitroaniline	ug/L	ND	20.0	10/12/20 21:50	
2-Nitrophenol	ug/L	ND	10.0	10/12/20 21:50	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	10.0	10/12/20 21:50	
3,3'-Dichlorobenzidine	ug/L	ND	20.0	10/12/20 21:50	
3-Nitroaniline	ug/L	ND	20.0	10/12/20 21:50	
4,6-Dinitro-2-methylphenol	ug/L	ND	20.0	10/12/20 21:50	
4-Bromophenylphenyl ether	ug/L	ND	10.0	10/12/20 21:50	
4-Chloro-3-methylphenol	ug/L	ND	10.0	10/12/20 21:50	
4-Chloroaniline	ug/L	ND	20.0	10/12/20 21:50	
4-Chlorophenylphenyl ether	ug/L	ND	10.0	10/12/20 21:50	
4-Nitroaniline	ug/L	ND	20.0	10/12/20 21:50	
4-Nitrophenol	ug/L	ND	50.0	10/12/20 21:50	
Acenaphthene	ug/L	ND	10.0	10/12/20 21:50	
Acenaphthylene	ug/L	ND	10.0	10/12/20 21:50	
Aniline	ug/L	ND	10.0	10/12/20 21:50	
Anthracene	ug/L	ND	10.0	10/12/20 21:50	
Benzo(a)anthracene	ug/L	ND	10.0	10/12/20 21:50	
Benzo(a)pyrene	ug/L	ND	10.0	10/12/20 21:50	
Benzo(b)fluoranthene	ug/L	ND	10.0	10/12/20 21:50	
Benzo(g,h,i)perylene	ug/L	ND	10.0	10/12/20 21:50	
Benzo(k)fluoranthene	ug/L	ND	10.0	10/12/20 21:50	
Benzoic Acid	ug/L	ND	50.0	10/12/20 21:50	
Benzyl alcohol	ug/L	ND	20.0	10/12/20 21:50	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

METHOD BLANK: 3031696 Matrix: Water

Associated Lab Samples: 92499650001

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
bis(2-Chloroethoxy)methane	ug/L	ND	10.0	10/12/20 21:50	
bis(2-Chloroethyl) ether	ug/L	ND	10.0	10/12/20 21:50	
bis(2-Ethylhexyl)phthalate	ug/L	ND	6.0	10/12/20 21:50	
Butylbenzylphthalate	ug/L	ND	10.0	10/12/20 21:50	
Chrysene	ug/L	ND	10.0	10/12/20 21:50	
Di-n-butylphthalate	ug/L	ND	10.0	10/12/20 21:50	
Di-n-octylphthalate	ug/L	ND	10.0	10/12/20 21:50	
Dibenz(a,h)anthracene	ug/L	ND	10.0	10/12/20 21:50	
Dibenzofuran	ug/L	ND	10.0	10/12/20 21:50	
Diethylphthalate	ug/L	ND	10.0	10/12/20 21:50	
Dimethylphthalate	ug/L	ND	10.0	10/12/20 21:50	
Fluoranthene	ug/L	ND	10.0	10/12/20 21:50	
Fluorene	ug/L	ND	10.0	10/12/20 21:50	
Hexachloro-1,3-butadiene	ug/L	ND	10.0	10/12/20 21:50	
Hexachlorobenzene	ug/L	ND	10.0	10/12/20 21:50	
Hexachlorocyclopentadiene	ug/L	ND	10.0	10/12/20 21:50	
Hexachloroethane	ug/L	ND	10.0	10/12/20 21:50	
Indeno(1,2,3-cd)pyrene	ug/L	ND	10.0	10/12/20 21:50	
Isophorone	ug/L	ND	10.0	10/12/20 21:50	
N-Nitroso-di-n-propylamine	ug/L	ND	10.0	10/12/20 21:50	
N-Nitrosodimethylamine	ug/L	ND	10.0	10/12/20 21:50	
N-Nitrosodiphenylamine	ug/L	ND	10.0	10/12/20 21:50	
Naphthalene	ug/L	ND	10.0	10/12/20 21:50	
Nitrobenzene	ug/L	ND	10.0	10/12/20 21:50	
Pentachlorophenol	ug/L	ND	20.0	10/12/20 21:50	
Phenanthrene	ug/L	ND	10.0	10/12/20 21:50	
Phenol	ug/L	ND	10.0	10/12/20 21:50	
Pyrene	ug/L	ND	10.0	10/12/20 21:50	
2,4,6-Tribromophenol (S)	%	77	10-144	10/12/20 21:50	
2-Fluorobiphenyl (S)	%	90	10-130	10/12/20 21:50	
2-Fluorophenol (S)	%	58	10-130	10/12/20 21:50	
Nitrobenzene-d5 (S)	%	94	10-144	10/12/20 21:50	
Phenol-d6 (S)	%	41	10-130	10/12/20 21:50	
Terphenyl-d14 (S)	%	124	34-163	10/12/20 21:50	

LABORATORY CONTROL SAMPLE:	3031697					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	50	37.2	74	18-130	
1,2-Dichlorobenzene	ug/L	50	35.5	71	20-130	
1,3-Dichlorobenzene	ug/L	50	34.0	68	18-130	
1,4-Dichlorobenzene	ug/L	50	35.6	71	18-130	
1-Methylnaphthalene	ug/L	50	38.9	78	29-130	
2,2'-Oxybis(1-chloropropane)	ug/L	50	53.7	107	28-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

LABORATORY CONTROL SAMPLE:	3031697					
<b>5</b>		Spike	LCS	LCS	% Rec	o
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
2,4,5-Trichlorophenol	ug/L	50	50.5	101	35-130	
2,4,6-Trichlorophenol	ug/L	50	50.0	100	31-130	
.,4-Dichlorophenol	ug/L	50	48.3	97	35-130	
,4-Dimethylphenol	ug/L	50	52.1	104	34-130	
,4-Dinitrophenol	ug/L	250	229	92	10-153	
,4-Dinitrotoluene	ug/L	50	51.5	103	37-136	
,6-Dinitrotoluene	ug/L	50	52.8	106	33-136	
-Chloronaphthalene	ug/L	50	44.5	89	26-130	
-Chlorophenol	ug/L	50	44.5	89	37-130	
-Methylnaphthalene	ug/L	50	40.2	80	29-130	
-Methylphenol(o-Cresol)	ug/L	50	41.1	82	35-130	
-Nitroaniline	ug/L	100	95.1	95	37-130	
-Nitrophenol	ug/L	50	48.9	98	32-130	
&4-Methylphenol(m&p Cresol)	ug/L	50	38.0	76	34-130	
,3'-Dichlorobenzidine	ug/L	100	90.5	90	34-136	
-Nitroaniline	ug/L	100	91.8	92	37-138	
,6-Dinitro-2-methylphenol	ug/L	100	107	107	21-157	
-Bromophenylphenyl ether	ug/L	50	53.0	106	38-130	
-Chloro-3-methylphenol	ug/L	100	92.1	92	37-130	
-Chloroaniline	ug/L	100	92.8	93	38-130	
-Chlorophenylphenyl ether	ug/L	50	46.7	93	33-130	
-Nitroaniline	ug/L	100	89.3	89	42-137	
-Nitrophenol	ug/L	250	121	49	10-130	
cenaphthene	ug/L	50	45.0	90	33-130	
.cenaphthylene	ug/L	50	46.0	92	35-130	
niline	ug/L	50	38.0	76	22-130	
Inthracene	ug/L	50	45.6	91	48-130	
Senzo(a)anthracene	ug/L	50	48.1	96	48-137	
Senzo(a)pyrene	ug/L	50	51.2	102	49-138	
enzo(b)fluoranthene	ug/L	50	51.2	102	52-138	
senzo(g,h,i)perylene	ug/L	50	49.4	99	48-140	
Senzo(k)fluoranthene	ug/L	50	55.2	110	48-139	
Benzoic Acid	ug/L	250	92.7	37	10-130	
senzyl alcohol	ug/L	100	80.9	81	35-130	
is(2-Chloroethoxy)methane	ug/L	50	47.2	94	34-130	
is(2-Chloroethyl) ether	ug/L	50	46.5	93	36-130	
is(2-Ethylhexyl)phthalate	ug/L	50	46.6	93	32-165	
Butylbenzylphthalate	ug/L	50	51.9	104	34-161	
Chrysene	ug/L	50	49.7	99	47-131	
Pi-n-butylphthalate	ug/L	50	47.7	95	39-144	
Pi-n-octylphthalate	ug/L	50	45.0	90	30-170	
Dibenz(a,h)anthracene	ug/L	50	48.2	96	49-138	
Dibenzofuran	ug/L	50	47.5	95	33-130	
Diethylphthalate	ug/L	50	48.1	96	38-131	
Dimethylphthalate	ug/L	50	48.1	96	37-130	
Tuoranthene	ug/L	50	47.7	95	46-137	
Fluorene	ug/L	50	46.7	93	37-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

LABORATORY CONTROL SAMPLE:	3031697					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Hexachloro-1,3-butadiene	ug/L	50	34.9	70	11-130	
Hexachlorobenzene	ug/L	50	51.6	103	38-130	
lexachlorocyclopentadiene	ug/L	50	35.7	71	10-130	
lexachloroethane	ug/L	50	33.1	66	14-130	
ndeno(1,2,3-cd)pyrene	ug/L	50	49.4	99	41-130	
ophorone	ug/L	50	49.5	99	33-130	
-Nitroso-di-n-propylamine	ug/L	50	49.9	100	36-130	
-Nitrosodimethylamine	ug/L	50	36.7	73	34-130	
Nitrosodiphenylamine	ug/L	50	53.4	107	37-130	
aphthalene	ug/L	50	38.9	78	30-130	
trobenzene	ug/L	50	49.2	98	36-130	
entachlorophenol	ug/L	100	94.6	95	23-149	
nenanthrene	ug/L	50	50.0	100	44-130	
nenol	ug/L	50	27.7	55	18-130	
rene	ug/L	50	53.0	106	47-134	
4,6-Tribromophenol (S)	%			106	10-144	
Fluorobiphenyl (S)	%			90	10-130	
Fluorophenol (S)	%			59	10-130	
trobenzene-d5 (S)	%			96	10-144	
enol-d6 (S)	%			48	10-130	
erphenyl-d14 (S)	%			119	34-163	

MATRIX SPIKE & MATRIX SP	PIKE DUPLIC	ATE: 3031	698		3031699							
			MS	MSD								
	9	2494245009	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1,2,4-Trichlorobenzene	ug/L	ND	50	50	36.8	36.9	74	74	10-130	0	30	
1,2-Dichlorobenzene	ug/L	ND	50	50	36.4	35.8	73	72	10-130	2	30	
1,3-Dichlorobenzene	ug/L	ND	50	50	34.3	33.9	69	68	10-130	1	30	
1,4-Dichlorobenzene	ug/L	ND	50	50	36.8	35.2	74	70	10-130	4	30	
1-Methylnaphthalene	ug/L	ND	50	50	41.5	41.9	83	84	10-130	1	30	
2,2'-Oxybis(1- chloropropane)	ug/L	ND	50	50	40.0	39.8	80	80	12-142	1	30	
2,4,5-Trichlorophenol	ug/L	ND	50	50	58.0	63.0	116	126	10-143	8	30	
2,4,6-Trichlorophenol	ug/L	ND	50	50	53.0	54.4	106	109	10-147	3	30	
2,4-Dichlorophenol	ug/L	ND	50	50	52.9	55.2	106	110	10-138	4	30	
2,4-Dimethylphenol	ug/L	ND	50	50	52.0	53.2	104	106	25-130	2	30	
2,4-Dinitrophenol	ug/L	ND	250	250	50.7	58.8	20	24	10-165	15	30	
2,4-Dinitrotoluene	ug/L	ND	50	50	49.8	52.8	100	106	29-148	6	30	
2,6-Dinitrotoluene	ug/L	ND	50	50	51.8	54.0	104	108	26-146	4	30	
2-Chloronaphthalene	ug/L	ND	50	50	45.1	44.3	90	89	11-130	2	30	
2-Chlorophenol	ug/L	ND	50	50	48.0	48.6	96	97	10-133	1	30	
2-Methylnaphthalene	ug/L	ND	50	50	42.5	42.9	85	86	13-130	1	30	
2-Methylphenol(o-Cresol)	ug/L	ND	50	50	48.4	48.3	97	97	20-130	0	30	
2-Nitroaniline	ug/L	ND	100	100	108	113	108	113	24-136	5	30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

## **REPORT OF LABORATORY ANALYSIS**



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

MATRIX SPIKE & MATRIX SP	IKE DUPI	LICATE: 3031			3031699	1						
			MS	MSD								
Parameter	Units	92494245009 Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qua
2-Nitrophenol	ug/L	ND	50	50	50.1	50.7	100	101	10-153	1	30	
3&4-Methylphenol(m&p	ug/L	ND	50	50	46.8	47.1	94	94	16-130	1		
Cresol)	_											
3,3'-Dichlorobenzidine	ug/L	ND	100	100	100	113	100	113	10-153	12		
3-Nitroaniline	ug/L	ND	100	100	96.2	108	96	108	22-151	11	30	
4,6-Dinitro-2-methylphenol	ug/L	ND	100	100	49.9	57.7	50	58	10-180	15		
1-Bromophenylphenyl ether	ug/L	ND	50	50	49.5	52.0	99	104	25-130	5		
4-Chloro-3-methylphenol	ug/L	ND	100	100	108	116	108	116	25-133	7		
1-Chloroaniline	ug/L	ND	100	100	86.7	91.9	87	92	14-132	6		
1-Chlorophenylphenyl ether	ug/L	ND	50	50	47.7	48.6	95	97	19-130	2		
1-Nitroaniline	ug/L	ND	100	100	101	113	101	113	29-150	11	30	
I-Nitrophenol	ug/L	ND	250	250	133	150	53	60	10-130	12		
Acenaphthene	ug/L	ND	50	50	44.5	44.0	89	88	16-130	1		
Acenaphthylene	ug/L	ND	50	50	47.0	46.9	94	94	15-137	0		
Aniline	ug/L	ND	50	50	38.7	39.0	77	78	10-130	1	30	
Anthracene	ug/L	ND	50	50	44.1	47.6	88	95	37-136	8		
Benzo(a)anthracene	ug/L	ND	50	50	50.5	54.9	101	110	40-145	8		
Benzo(a)pyrene	ug/L	ND	50	50	49.4	54.3	99	109	41-146	10		
Benzo(b)fluoranthene	ug/L	ND	50	50	48.2	54.6	96	109	39-151	13		
Benzo(g,h,i)perylene	ug/L	ND	50	50	50.0	53.6	100	107	40-147	7		
Benzo(k)fluoranthene	ug/L	ND	50	50	48.8	52.9	98	106	40-146	8	30	
Benzoic Acid	ug/L	ND	250	250	21.1J	25J	8	10	10-130		30	M1
Benzyl alcohol	ug/L	ND	100	100	101	101	101	101	25-130	1		
ois(2- Chloroethoxy)methane	ug/L	ND	50	50	45.6	45.9	91	92	23-130	1	30	
ois(2-Chloroethyl) ether	ug/L	ND	50	50	47.9	48.5	96	97	25-130	1	30	
ois(2-Ethylhexyl)phthalate	ug/L	ND	50	50	57.1	62.5	114	125	28-166	9	30	
Butylbenzylphthalate	ug/L	ND	50	50	57.3	63.2	115	126	33-165	10	30	
Chrysene	ug/L	ND	50	50	48.7	53.8	97	108	38-141	10	30	
Di-n-butylphthalate	ug/L	ND	50	50	54.7	59.8	109	120	32-153	9	30	
Di-n-octylphthalate	ug/L	ND	50	50	62.9	68.8	126	138	30-175	9		v1
Dibenz(a,h)anthracene	ug/L	ND	50	50	51.7	55.9	103	112	39-148	8	30	
Dibenzofuran	ug/L	ND	50	50	46.3	46.4	93	93	20-130	0	30	
Diethylphthalate	ug/L	ND	50	50	49.6	51.9	99	104	28-142	4	30	
Dimethylphthalate	ug/L	ND	50	50	47.1	48.4	94	97	26-136	3		
Fluoranthene	ug/L	ND	50	50	51.0	56.2	102	112	39-143	10		
Fluorene	ug/L	ND	50	50	46.6	47.4	93	95	24-132	2	30	
lexachloro-1,3-butadiene	ug/L	ND	50	50	35.2	34.4	70	69	10-130	2	30	
lexachlorobenzene	ug/L	ND	50	50	45.8	49.0	92	98	29-130	7		
lexachlorocyclopentadiene	ug/L	ND	50	50	30.9	29.7	62	59	10-130	4		
Hexachloroethane	ug/L	ND	50	50	34.4	33.2	69	66	10-130	4		
ndeno(1,2,3-cd)pyrene	ug/L	ND	50	50	51.6	55.8	103	112	39-148	8		
sophorone	ug/L	ND	50	50	45.4	46.2	91	92	23-130			
N-Nitroso-di-n-propylamine	ug/L	ND	50	50	47.7	48.3	95	97	25-130	1		
N-Nitrosodimethylamine	ug/L	ND	50	50	35.2	35.7	70	71	22-130			
N-Nitrosodiphenylamine	ug/L	ND	50	50	49.6	53.8	99	108	26-134			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

			MS	MSD								
		92494245009	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qua
Naphthalene	ug/L	ND	50	50	39.2	39.2	78	78	14-130	0	30	
Nitrobenzene	ug/L	ND	50	50	46.1	47.3	92	95	25-130	3	30	
Pentachlorophenol	ug/L	ND	100	100	107	120	107	120	10-175	12	30	
Phenanthrene	ug/L	ND	50	50	47.4	51.0	95	102	36-133	7	30	
Phenol	ug/L	ND	50	50	29.4	28.0	59	56	10-130	5	30	
Pyrene	ug/L	ND	50	50	47.3	52.0	95	104	40-143	9	30	
2,4,6-Tribromophenol (S)	%						117	129	10-144			
2-Fluorobiphenyl (S)	%						86	84	10-130			
2-Fluorophenol (S)	%						66	66	10-130			
Nitrobenzene-d5 (S)	%						92	93	10-144			
Phenol-d6 (S)	%						55	57	10-130			
Terphenyl-d14 (S)	%						100	111	34-163			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

QC Batch: 572738 Analysis Method: EPA 8270E

QC Batch Method: EPA 3510C Analysis Description: 8270E Water MSSV RVE

Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92499650002, 92499650004, 92499650005

METHOD BLANK: 3033084 Matrix: Water

Associated Lab Samples: 92499650002, 92499650004, 92499650005

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/L	ND ND	10.0	10/13/20 11:50	
1,2-Dichlorobenzene	ug/L	ND	10.0	10/13/20 11:50	
1,3-Dichlorobenzene	ug/L	ND	10.0	10/13/20 11:50	
1,4-Dichlorobenzene	ug/L	ND	10.0	10/13/20 11:50	
1-Methylnaphthalene	ug/L	ND	10.0	10/13/20 11:50	
2,2'-Oxybis(1-chloropropane)	ug/L	ND	10.0	10/13/20 11:50	
2,4,5-Trichlorophenol	ug/L	ND	10.0	10/13/20 11:50	
2,4,6-Trichlorophenol	ug/L	ND	10.0	10/13/20 11:50	
2,4-Dichlorophenol	ug/L	ND	10.0	10/13/20 11:50	
2,4-Dimethylphenol	ug/L	ND	10.0	10/13/20 11:50	
2,4-Dinitrophenol	ug/L	ND	50.0	10/13/20 11:50	
2,4-Dinitrotoluene	ug/L	ND	10.0	10/13/20 11:50	
2,6-Dinitrotoluene	ug/L	ND	10.0	10/13/20 11:50	
2-Chloronaphthalene	ug/L	ND	10.0	10/13/20 11:50	
2-Chlorophenol	ug/L	ND	10.0	10/13/20 11:50	
2-Methylnaphthalene	ug/L	ND	10.0	10/13/20 11:50	
2-Methylphenol(o-Cresol)	ug/L	ND	10.0	10/13/20 11:50	
2-Nitroaniline	ug/L	ND	20.0	10/13/20 11:50	
2-Nitrophenol	ug/L	ND	10.0	10/13/20 11:50	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	10.0	10/13/20 11:50	
3,3'-Dichlorobenzidine	ug/L	ND	20.0	10/13/20 11:50	
3-Nitroaniline	ug/L	ND	20.0	10/13/20 11:50	
4,6-Dinitro-2-methylphenol	ug/L	ND	20.0	10/13/20 11:50	
4-Bromophenylphenyl ether	ug/L	ND	10.0	10/13/20 11:50	
4-Chloro-3-methylphenol	ug/L	ND	10.0	10/13/20 11:50	
4-Chloroaniline	ug/L	ND	20.0	10/13/20 11:50	
4-Chlorophenylphenyl ether	ug/L	ND	10.0	10/13/20 11:50	
4-Nitroaniline	ug/L	ND	20.0	10/13/20 11:50	
4-Nitrophenol	ug/L	ND	50.0	10/13/20 11:50	
Acenaphthene	ug/L	ND	10.0	10/13/20 11:50	
Acenaphthylene	ug/L	ND	10.0	10/13/20 11:50	
Aniline	ug/L	ND	10.0	10/13/20 11:50	
Anthracene	ug/L	ND	10.0	10/13/20 11:50	
Benzo(a)anthracene	ug/L	ND	10.0	10/13/20 11:50	
Benzo(a)pyrene	ug/L	ND	10.0	10/13/20 11:50	
Benzo(b)fluoranthene	ug/L	ND	10.0	10/13/20 11:50	
Benzo(g,h,i)perylene	ug/L	ND	10.0	10/13/20 11:50	
Benzo(k)fluoranthene	ug/L	ND	10.0	10/13/20 11:50	
Benzoic Acid	ug/L	ND	50.0	10/13/20 11:50	
Benzyl alcohol	ug/L	ND	20.0	10/13/20 11:50	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

METHOD BLANK: 3033084 Matrix: Water

Associated Lab Samples: 92499650002, 92499650004, 92499650005

_		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
(2-Chloroethoxy)methane	ug/L	ND	10.0	10/13/20 11:50	
2-Chloroethyl) ether	ug/L	ND	10.0	10/13/20 11:50	
2-Ethylhexyl)phthalate	ug/L	ND	6.0	10/13/20 11:50	
lbenzylphthalate	ug/L	ND	10.0	10/13/20 11:50	
rsene	ug/L	ND	10.0	10/13/20 11:50	
butylphthalate	ug/L	ND	10.0	10/13/20 11:50	
octylphthalate	ug/L	ND	10.0	10/13/20 11:50	
nz(a,h)anthracene	ug/L	ND	10.0	10/13/20 11:50	
nzofuran	ug/L	ND	10.0	10/13/20 11:50	
nylphthalate	ug/L	ND	10.0	10/13/20 11:50	
ethylphthalate	ug/L	ND	10.0	10/13/20 11:50	
ranthene	ug/L	ND	10.0	10/13/20 11:50	
rene	ug/L	ND	10.0	10/13/20 11:50	
achloro-1,3-butadiene	ug/L	ND	10.0	10/13/20 11:50	
ichlorobenzene	ug/L	ND	10.0	10/13/20 11:50	
chlorocyclopentadiene	ug/L	ND	10.0	10/13/20 11:50	
chloroethane	ug/L	ND	10.0	10/13/20 11:50	
o(1,2,3-cd)pyrene	ug/L	ND	10.0	10/13/20 11:50	
orone	ug/L	ND	10.0	10/13/20 11:50	
oso-di-n-propylamine	ug/L	ND	10.0	10/13/20 11:50	
osodimethylamine	ug/L	ND	10.0	10/13/20 11:50	v1
rosodiphenylamine	ug/L	ND	10.0	10/13/20 11:50	
thalene	ug/L	ND	10.0	10/13/20 11:50	
penzene	ug/L	ND	10.0	10/13/20 11:50	
achlorophenol	ug/L	ND	20.0	10/13/20 11:50	
anthrene	ug/L	ND	10.0	10/13/20 11:50	
nol	ug/L	ND	10.0	10/13/20 11:50	
ne	ug/L	ND	10.0	10/13/20 11:50	
-Tribromophenol (S)	%	111	10-144	10/13/20 11:50	
orobiphenyl (S)	%	94	10-130	10/13/20 11:50	
orophenol (S)	%	75	10-130	10/13/20 11:50	
obenzene-d5 (S)	%	107	10-144	10/13/20 11:50	
nol-d6 (S)	%	62	10-130	10/13/20 11:50	
phenyl-d14 (S)	%	134	34-163	10/13/20 11:50	

LABORATORY CONTROL SAMPLE:	3033085					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	50	39.9	80	18-130	
1,2-Dichlorobenzene	ug/L	50	36.5	73	20-130	
1,3-Dichlorobenzene	ug/L	50	33.8	68	18-130	
1,4-Dichlorobenzene	ug/L	50	35.3	71	18-130	
1-Methylnaphthalene	ug/L	50	46.9	94	29-130	
2,2'-Oxybis(1-chloropropane)	ug/L	50	43.0	86	28-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

LABORATORY CONTROL SAMPLE:	3033085	Spike	LCS	LCS	% Rec
Parameter	Units	Conc.	Result	% Rec	Limits Qualifie
2,4,5-Trichlorophenol	ug/L		50.8	102	35-130
2,4,6-Trichlorophenol	ug/L	50	51.0	102	31-130
2,4-Dichlorophenol	ug/L	50	51.9	104	35-130
2,4-Dimethylphenol	ug/L	50	51.1	102	34-130
2,4-Dinitrophenol	ug/L	250	185	74	10-153
2,4-Dinitrotoluene	ug/L	50	56.2	112	37-136
2,6-Dinitrotoluene	ug/L	50	54.5	109	33-136
2-Chloronaphthalene	ug/L	50	45.6	91	26-130
-Chlorophenol	ug/L	50	46.4	93	37-130
2-Methylnaphthalene	ug/L	50	46.9	94	29-130
-Methylphenol(o-Cresol)	ug/L	50	46.9	94	35-130
-Nitroaniline	ug/L	100	91.7	92	37-130
P-Nitrophenol	ug/L	50	52.8	106	32-130
8&4-Methylphenol(m&p Cresol)	ug/L	50	46.8	94	34-130
3,3'-Dichlorobenzidine	ug/L	100	103	103	34-136
-Nitroaniline	ug/L	100	109	109	37-138
,6-Dinitro-2-methylphenol	ug/L	100	103	103	21-157
-Bromophenylphenyl ether	ug/L	50	51.1	102	38-130
-Chloro-3-methylphenol	ug/L	100	107	107	37-130
-Chloroaniline	ug/L	100	96.9	97	38-130
-Chlorophenylphenyl ether	ug/L	50	51.8	104	33-130
-Nitroaniline	ug/L	100	107	107	42-137
-Nitrophenol	ug/L	250	155	62	10-130
cenaphthene	ug/L	50	47.4	95	33-130
cenaphthylene	ug/L	50	48.3	97	35-130
niline	ug/L	50	35.0	70	22-130
Anthracene	ug/L	50	46.2	92	48-130
Benzo(a)anthracene	ug/L	50	49.9	100	48-137
Benzo(a)pyrene	ug/L	50	50.7	101	49-138
Benzo(b)fluoranthene	ug/L	50	52.1	104	52-138
Benzo(g,h,i)perylene	ug/L	50	46.5	93	48-140
Benzo(k)fluoranthene	ug/L	50	51.5	103	48-139
Benzoic Acid	ug/L	250	17.9J	7	10-130 L2
Benzyl alcohol	ug/L	100	101	101	35-130
is(2-Chloroethoxy)methane	ug/L	50	50.5	101	34-130
ois(2-Chloroethyl) ether	ug/L	50	53.1	106	36-130
pis(2-Ethylhexyl)phthalate	ug/L	50	51.2	102	32-165
Butylbenzylphthalate	ug/L	50	56.4	113	34-161
Chrysene	ug/L	50	47.8	96	47-131
Di-n-butylphthalate	ug/L	50	59.1	118	39-144
Pi-n-octylphthalate	ug/L	50	56.8	114	30-170
Dibenz(a,h)anthracene	ug/L	50	46.4	93	49-138
Dibenzofuran	ug/L	50	49.6	99	33-130
Diethylphthalate	ug/L	50	53.8	108	38-131
Dimethylphthalate	ug/L	50	52.4	105	37-130
Fluoranthene	ug/L	50	54.1	108	46-137
Fluorene	ug/L	50	50.5	101	37-130

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

ABORATORY CONTROL SAMPLE:	3033085					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
exachloro-1,3-butadiene	ug/L	50	37.7	75	11-130	
exachlorobenzene	ug/L	50	50.4	101	38-130	
xachlorocyclopentadiene	ug/L	50	38.6	77	10-130	
xachloroethane	ug/L	50	31.9	64	14-130	
deno(1,2,3-cd)pyrene	ug/L	50	47.6	95	41-130	
ophorone	ug/L	50	53.4	107	33-130	
Nitroso-di-n-propylamine	ug/L	50	54.8	110	36-130	
Nitrosodimethylamine	ug/L	50	44.7	89	34-130 v	<b>v</b> 1
Nitrosodiphenylamine	ug/L	50	48.3	97	37-130	
phthalene	ug/L	50	43.9	88	30-130	
robenzene	ug/L	50	48.6	97	36-130	
ntachlorophenol	ug/L	100	109	109	23-149	
enanthrene	ug/L	50	48.7	97	44-130	
enol	ug/L	50	32.9	66	18-130	
rene	ug/L	50	48.0	96	47-134	
4,6-Tribromophenol (S)	%			119	10-144	
Fluorobiphenyl (S)	%			95	10-130	
Fluorophenol (S)	%			73	10-130	
robenzene-d5 (S)	%			101	10-144	
enol-d6 (S)	%			63	10-130	
phenyl-d14 (S)	%			114	34-163	

MATRIX SPIKE & MATRIX SI	PIKE DUPLIC	CATE: 3033	086		3033087							
			MS	MSD								
	9	2499650004	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1,2,4-Trichlorobenzene	ug/L	ND	50	50	27.9	27.0	56	54	10-130	3	30	
1,2-Dichlorobenzene	ug/L	ND	50	50	25.2	22.9	50	46	10-130	10	30	
1,3-Dichlorobenzene	ug/L	ND	50	50	24.2	22.5	48	45	10-130	7	30	
1,4-Dichlorobenzene	ug/L	ND	50	50	25.0	22.7	50	45	10-130	10	30	
1-Methylnaphthalene	ug/L	ND	50	50	33.5	32.0	67	64	10-130	5	30	
2,2'-Oxybis(1- chloropropane)	ug/L	ND	50	50	31.3	28.1	63	56	12-142	11	30	
2,4,5-Trichlorophenol	ug/L	ND	50	50	34.9	34.2	70	68	10-143	2	30	
2,4,6-Trichlorophenol	ug/L	ND	50	50	36.1	34.1	72	68	10-147	6	30	
2,4-Dichlorophenol	ug/L	ND	50	50	37.9	35.5	76	71	10-138	7	30	
2,4-Dimethylphenol	ug/L	ND	50	50	37.6	34.2	75	68	25-130	10	30	
2,4-Dinitrophenol	ug/L	ND	250	250	179	167	72	67	10-165	7	30	
2,4-Dinitrotoluene	ug/L	ND	50	50	43.2	40.0	86	80	29-148	8	30	
2,6-Dinitrotoluene	ug/L	ND	50	50	39.7	37.7	79	75	26-146	5	30	
2-Chloronaphthalene	ug/L	ND	50	50	32.9	31.3	66	63	11-130	5	30	
2-Chlorophenol	ug/L	ND	50	50	33.9	31.0	68	62	10-133	9	30	
2-Methylnaphthalene	ug/L	ND	50	50	34.1	32.1	68	64	13-130	6	30	
2-Methylphenol(o-Cresol)	ug/L	ND	50	50	38.0	32.3	76	65	20-130	16	30	
2-Nitroaniline	ug/L	ND	100	100	68.1	68.5	68	69	24-136	1	30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

MATRIX SPIKE & MATRIX SP	IKE DUP	LICATE: 3033										
			MS	MSD								
Parameter	Units	92499650004 Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qua
				COIIC.					LIIIIIIS			-Qu
2-Nitrophenol	ug/L	ND	50	50	37.4	35.3	75	71	10-153	6		
3&4-Methylphenol(m&p Cresol)	ug/L	ND	50	50	36.8	31.8	74	64	16-130	14		
3,3'-Dichlorobenzidine	ug/L	ND	100	100	77.5	72.8	77	73	10-153	6		
3-Nitroaniline	ug/L	ND	100	100	77.4	74.0	77	74	22-151	4	30	
1,6-Dinitro-2-methylphenol	ug/L	ND	100	100	78.8	71.9	79	72	10-180	9		
1-Bromophenylphenyl ether	ug/L	ND	50	50	37.2	36.0	74	72	25-130	3		
1-Chloro-3-methylphenol	ug/L	ND	100	100	78.6	72.1	79	72	25-133	9		
1-Chloroaniline	ug/L	ND	100	100	66.1	60.1	66	60	14-132	9		
I-Chlorophenylphenyl ether	ug/L	ND	50	50	38.1	37.1	76	74	19-130	3	30	
1-Nitroaniline	ug/L	ND	100	100	85.4	77.9	85	78	29-150	9		
1-Nitrophenol	ug/L	ND	250	250	152	141	61	56	10-130	7		
Acenaphthene	ug/L	ND	50	50	35.6	33.2	71	66	16-130	7		
Acenaphthylene	ug/L	ND	50	50	35.6	33.6	71	67	15-137	6	30	
Aniline	ug/L	ND	50	50	24.6	16.2	49	32	10-130	41	30	R1
Anthracene	ug/L	ND	50	50	34.4	32.0	69	64	37-136	7	30	
Benzo(a)anthracene	ug/L	ND	50	50	39.1	36.6	78	73	40-145	7	30	
Benzo(a)pyrene	ug/L	ND	50	50	41.2	37.2	82	74	41-146	10	30	
Benzo(b)fluoranthene	ug/L	ND	50	50	40.4	36.8	81	74	39-151	9	30	
Benzo(g,h,i)perylene	ug/L	ND	50	50	41.1	35.5	82	71	40-147	15	30	
Benzo(k)fluoranthene	ug/L	ND	50	50	41.9	37.3	84	75	40-146	12	30	
Benzoic Acid	ug/L	ND	250	250	133	97.6	53	39	10-130	30	30	
Benzyl alcohol	ug/L	ND	100	100	75.3	68.6	75	69	25-130	9	30	
ois(2- Chloroethoxy)methane	ug/L	ND	50	50	37.0	34.4	74	69	23-130	7	30	
ois(2-Chloroethyl) ether	ug/L	ND	50	50	38.3	35.0	77	70	25-130	9	30	
ois(2-Ethylhexyl)phthalate	ug/L	ND	50	50	36.1	34.6	72	69	28-166	4	30	
Butylbenzylphthalate	ug/L	ND	50	50	41.1	39.7	82	79	33-165	3	30	
Chrysene	ug/L	ND	50	50	39.0	36.6	78	73	38-141	6	30	
Di-n-butylphthalate	ug/L	ND	50	50	42.3	39.5	85	79	32-153	7	30	
Di-n-octylphthalate	ug/L	ND	50	50	38.2	37.1	76	74	30-175	3	30	
Dibenz(a,h)anthracene	ug/L	ND	50	50	40.9	35.6	82	71	39-148	14	30	
Dibenzofuran	ug/L	ND	50	50	37.6	35.4	75	71	20-130	6	30	
Diethylphthalate	ug/L	ND	50	50	42.9	39.8	86	80	28-142	7	30	
Dimethylphthalate	ug/L	ND	50	50	40.4	37.8	81	76	26-136	7	30	
Fluoranthene	ug/L	ND	50	50	42.0	38.3	84	77	39-143	9	30	
Fluorene	ug/L	ND	50	50	37.8	35.7	76	71	24-132	6	30	
lexachloro-1,3-butadiene	ug/L	ND	50	50	24.8	24.0	50	48	10-130	4	30	
lexachlorobenzene	ug/L	ND	50	50	37.3	34.7	75	69	29-130	7	30	
Hexachlorocyclopentadiene	ug/L	ND	50	50	25.7	24.7	51	49	10-130	4	30	
-lexachloroethane	ug/L	ND	50	50	22.2	21.4	44	43	10-130	4		
ndeno(1,2,3-cd)pyrene	ug/L	ND	50	50	40.9	36.3	82	73	39-148	12		
sophorone	ug/L	ND	50	50	38.3	36.3	77	73	23-130	5		
N-Nitroso-di-n-propylamine	ug/L	ND	50	50	39.2	34.8	78	70	25-130	12		
N-Nitrosodimethylamine	ug/L	ND	50	50	31.9	29.4	64	59	22-130	8		
N-Nitrosodiphenylamine	ug/L	ND	50	50	36.1	34.1	72	68	26-134	6		

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

			MS	MSD								
		92499650004	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Naphthalene	ug/L		50	50	29.5	27.9	59	56	14-130	6	30	
Nitrobenzene	ug/L	ND	50	50	34.7	33.1	69	66	25-130	5	30	
Pentachlorophenol	ug/L	ND	100	100	81.8	75.1	82	75	10-175	9	30	
Phenanthrene	ug/L	ND	50	50	38.1	35.1	76	70	36-133	8	30	
Phenol	ug/L	ND	50	50	30.2	25.5	60	51	10-130	17	30	
Pyrene	ug/L	ND	50	50	38.6	35.7	77	71	40-143	8	30	
2,4,6-Tribromophenol (S)	%						79	70	10-144			
2-Fluorobiphenyl (S)	%						66	59	10-130			
2-Fluorophenol (S)	%						57	50	10-130			
Nitrobenzene-d5 (S)	%						70	63	10-144			
Phenol-d6 (S)	%						57	46	10-130			
Terphenyl-d14 (S)	%						83	75	34-163			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



#### **QUALIFIERS**

Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

#### **DEFINITIONS**

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

**DUP - Sample Duplicate** 

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

#### **ANALYTE QUALIFIERS**

Date: 10/15/2020 10:48 AM

IK	The recalculated concentration of the calibration standard(s) did not meet method acceptance criteria; this result should be considered an estimated value.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.
v1	The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.
v2	The continuing calibration verification was below the method acceptance limit. The analyte was not detected in the associated samples and the sensitivity of the instrument was verified with a reporting limit check standard.
v3	The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have low bias.



## **QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: AWI Facility Proj#169001899

Pace Project No.: 92499650

Date: 10/15/2020 10:48 AM

ab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2499650001	GW-MN05D-AWI-100620	EPA 3510C	572737	EPA 8082A	573205
2499650002	GW-MN05-AWI-100720	EPA 3510C	572737	EPA 8082A	573205
2499650003	GW-MN05-F-AWI-100720	EPA 3510C	572737	EPA 8082A	573205
2499650004	GW-MN04-AWI-100720 MS/MSD	EPA 3510C	572737	EPA 8082A	573205
2499650005	GW-MN04-DUP-AWI-100720	EPA 3510C	572737	EPA 8082A	573205
2499650001	GW-MN05D-AWI-100620	EPA 3010A	572126	EPA 6010D	572182
2499650002	GW-MN05-AWI-100720	EPA 3010A	572126	EPA 6010D	572182
2499650003	GW-MN05-F-AWI-100720	EPA 3010A	572126	EPA 6010D	572182
2499650004	GW-MN04-AWI-100720 MS/MSD	EPA 3010A	572126	EPA 6010D	572182
2499650005	GW-MN04-DUP-AWI-100720	EPA 3010A	572126	EPA 6010D	572182
2499650001	GW-MN05D-AWI-100620	EPA 7470A	572203	EPA 7470A	572641
2499650002	GW-MN05-AWI-100720	EPA 7470A	572203	EPA 7470A	572641
2499650003	GW-MN05-F-AWI-100720	EPA 7470A	572203	EPA 7470A	572641
2499650004	GW-MN04-AWI-100720 MS/MSD	EPA 7470A	572203	EPA 7470A	572641
2499650005	GW-MN04-DUP-AWI-100720	EPA 7470A	572203	EPA 7470A	572641
2499650001	GW-MN05D-AWI-100620	EPA 3510C	572436	EPA 8270E	572664
2499650002	GW-MN05-AWI-100720	EPA 3510C	572738	EPA 8270E	573065
2499650004	GW-MN04-AWI-100720 MS/MSD	EPA 3510C	572738	EPA 8270E	573065
2499650005	GW-MN04-DUP-AWI-100720	EPA 3510C	572738	EPA 8270E	573065
2499650001	GW-MN05D-AWI-100620	EPA 8260D	572627		
2499650002	GW-MN05-AWI-100720	EPA 8260D	572627		
2499650004	GW-MN04-AWI-100720 MS/MSD	EPA 8260D	572627		
2499650005	GW-MN04-DUP-AWI-100720	EPA 8260D	572627		
2499650006	TRIP BLANK	EPA 8260D	572622		



# CHAIN-OF-CUSTODY / Analytical Request Document The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Report   R	etion nuire	n A ed Client Information:	Section B Required Project	Information					Section													Г	0				
Total   Addition   Addition   St.   Copy   To   Total   Copy   To   Total   Copy   Total   Total	_							_	_		Пацо				_				-	$\neg$		ᆫ	Page	<u>:                                     </u>	11	Of	1
## 25 10 AMPLE 1D  ***********************************	1ress				UH		-	_			ne:									$\dashv$							
	te 31	10, Atlanta, GA 30339	RPAT	CHET	TOPRO	AMP	Ollica	יאוכ	Address	b:										-	-	SKI	Rec	úleti	ory Apency	100	WHAT IS
SAMPLE ID  ONE Character per box.  (AZ, S41, - OWNEL   100	all:																						_				
SAMPLE ID  ONE Character per box.  (AZ, S41, - OWNEL   100	_			AWI facility	Ртој #: 1690	018899			Pace Pr	oject i	Manag	er:	n kita.	kuruga	nty@	pacet	abs.co	om,	1.16	$\cap$ $\mathbb{H}$		27	ΛC		165	n	
SAMPLE ID  SAMPLE ID  ONE Character per boar.  (AZ 1941  ONE Character per boar.  (	quest	led Due Dale:	Project #:						Pace Pr	ofile #	1	2686							W	Uti		JL	7				
CN - MNOD - MNI - 100120 wt 6 100120 1100   3 2 1 1   3 2 2 1		Drinking Water©	CODED SE	S C=COMP)	COLLEG	CTED		CTION			Pres	erval	tives		A/IN				924	996	50						
CAL 667.   ORD		SAMPLE ID Productil Sold/Sold/G	PD STG SG	(G=GRAF	ART	EN	ID	TCOLLE	SS .						Test		1	noo peon			1			ne (JVI)			
CN-MNOS-ANI-100720m1   Colorida   110   8 4   1 3   3 2 2 1	# #	(A-Z, 8-9 / , - Airo Other I Tissue	WATRIX CODE	SAMPLE TYPE  SAMPLE TYPE  THE SAMPLE TYPE  S	TIME	DATE		SAMPLE TEMP	# OF CONTAINE Unpreserved	H2SO4	HNO3	NaOH	Na2S203	Other	Analyses	8260 Full List	8270 SVOC	RCRA Metals		1365				Residual Chlori			
2 GN-MN05-ANI-100720w16 ploto 1110 84 13 3 2 2 1		GW-MN05D-AWI-10	10020WI	e locula	1300	-			84	$\Box$	1	3	$\prod$	$\top$		3	22	- 1		${\mathbb H}$	$\top$	$\Box$	${\mathbb H}$	Ŧ			
4 GW - MWO4 - ANI - 100120 M G 1010121345 8 4 1 3 3 2 2 1 5 5 6 M M O4 - DUP-PNI - 100720 M G 1010121345 8 4 1 3 3 2 2 1 5 6 M M O4 - DUP-PNI - 100720 M G 1010121345 8 4 1 3 3 2 2 1 5 6 GW - MWO4 - M - AWI - 100720 M G 1010121345 8 4 1 3 3 2 2 1 5 6 GW - MWO4 - M D-AWI - 100720 M G 1010121345 8 4 1 3 3 2 2 1 5 6 GW - MWO4 - M D-AWI - 100720 M G 1010121345 8 4 1 3 3 2 2 1 5 6 GW - MWO4 - M D-AWI - 100720 M G 1010121345 8 4 1 3 3 2 2 1 5 6 GW - MWO4 - M D-AWI - 100720 M G 1010121345 8 4 1 3 3 2 2 1 5 6 GW - MWO4 - M D-AWI - 100720 M G 1010121345 8 4 1 3 3 2 2 1 5 6 GW - MWO4 - M D-AWI - 100720 M G 1010121345 8 4 1 3 3 2 2 1 5 6 GW - MWO4 - M D-AWI - 100720 M G 1010121345 8 4 1 3 3 3 2 2 1 5 6 GW - MWO4 - M D-AWI - 100720 M G 1010121345 8 4 1 3 3 3 2 2 1 5 6 GW - MWO4 - M D-AWI - 100720 M G 1010121345 8 4 1 3 3 3 2 2 1 5 6 GW - MWO4 - M D-AWI - 100720 M G 1010121345 8 4 1 3 3 3 2 2 1 5 6 GW - MWO4 - M D-AWI - 100720 M G 1010121345 8 4 1 3 3 3 2 2 1 5 6 GW - MWO4 - M D-AWI - 100720 M G 1010121345 8 4 1 3 3 3 2 2 1 5 6 GW - MWO4 - M D-AWI - 100720 M G 1010121345 8 4 1 3 3 3 2 2 1 5 6 GW - MWO4 - M D-AWI - 100720 M G 1010121345 8 4 1 3 3 3 2 2 1 5 6 GW - MWO4 - M D-AWI - 100720 M G 1010121345 8 4 1 3 3 3 2 2 1 5 6 GW - MWO4 - M D-AWI - 100720 M G 1010121345 8 4 1 3 3 3 2 2 1 5 6 GW - MWO4 - M D-AWI - 100720 M G 1010121345 8 4 1 3 3 3 2 2 1 5 6 GW - MWO4 - M D-AWI - 100720 M G 1010121345 8 4 1 3 3 3 2 2 1 5 6 GW - MWO4 - M D-AWI - 100720 M G 1010121345 8 4 1 3 3 3 2 2 1 5 6 GW - MWO4 - M D-AWI - 100720 M G 1010121345 8 4 1 3 3 3 2 2 1 5 6 GW - MWO4 - M D-AWI - 100720 M G 1010121345 8 4 1 3 3 3 2 2 1 5 6 GW - MWO4 - M D-AWI -	2	GW-MW05-AWI-1							34		j į	3				3	2 7	21		П				ſ			
GW-MW04-AWI-100720   G    G    G    G    G    G    G	3	GW-MW05-F-AWI-10	)0720wt	6 10 m/x	0111			7	32		1						1	2 1						ſ	tield	¥:11	-eve
S CW-MWO4-DUP-PWI-100720 MT G IDIOTIZE THE SAMPLE CONDITION DATE TIME SAMPL		GW-MWO4-AWI-10				Ī			84		١:	3				3	2 2	2 1		П				ſ			
GW-MW04-DUP-INII-100720 wt G 10/01/20 1345 8 4 1 3 3 2 2 1 M5  GW-MW04-M-AWI-100720 wt G 10/01/20 1345 8 4 1 3 3 2 2 1 M5  GW-MW04-MD-AWI-100720 wt G 10/01/20 1345 8 4 1 3 3 2 2 1 M5  ADDITIONAL COMMENTS RELINQUISHED BY APPLIATION DATE TIME ACCEPTED BY APPLIATION DATE TIME SAMPLE CONDITION  LEVEL TILGHA PACKOGE, GINZOGAM COMMENTS 10/08/20 10/0	5 -	CHIND4						$\exists$	-		7	-	$\Box$	+-	$\vdash$	$\overline{}$	-	+		$\Box$		$\Box$	$\Box$		Emme	1010	าาอ
ADDITIONAL COMMENTS  RELINGUISHED BY APPLIATION  DATE TIME ACCEPTED BY APPLIATION  DATE TIME SAMPLE CONDITION  LEVEL THE CONDITION  BAMPLER NAME AND SIGNATURE  SAMPLER NAME AND SIGNATURE	3	GW-MW04-DUP-AWI-	100720wT	G Work	1345			1	34	П	1	3	П			3	2 2	2 1		П				ı			,
ADDITIONAL COMMENTS RELINQUISHED BY APPLIATION DATE TIME ACCEPTED BY APPLIATION DATE TIME SAMPLE CONDITION  LEVEL TILDCHA PACKAGE GIVE APPLIATION OF THE SAMPLE CONDITION  SAMPLER NAME AND SIGNATURE	7									П	_	_	П				_	$\neg$							M	5	
ADDITIONAL COMMENTS RELINQUISHED BY AFFEIATION DATE TIME ACCEPTED BY AFFEIATION DATE TIME SAMPLE CONDITION  1. P.V. E. T. J. C. L.	T										1	3					2 2	2 1		$\prod$	$\top$			Ī	M	<del>ŠI</del> D	
ADDITIONAL COMMENTS RELINQUISHED BY AFFILIATION DATE TIME ACCEPTED BY AFFILIATION DATE TIME SAMPLE CONDITION  LEVEL TILD CITY PACKAGE CONSIDER CONSIDER CONSIDER CONDITION  SAMPLER NAME AND SIGNATURE	屬	Company of the second						1			7	1								П				ŀ			
ADDITIONAL GOMMENTS RELINQUISHED BY / AFFELIATION DATE TIME SAMPLE CONDITION  1. EVE   DIJCH A PACKONG CONSTITUTE   CONDITION   CONSTITUTE   CONDITION   CONDITION	50)				-	$\dashv$		$\dashv$	+	$\vdash$	+	+	$\vdash$	+		-+	+	+		Н	+	$\vdash$	+	ŀ			
ADDITIONAL COMMENTS RELINQUISHED BY AFFELATION DATE TIME SAMPLE CONDITION  LEVEL TO DESCRIPTION DATE TIME SAMPLE CONDITION  LEVEL TO DESCRIPTION DATE TIME SAMPLE CONDITION  SAMPLER NAME AND SIGNATURE		· · · · · · · · · · · · · · · · · · ·						$\dashv$		Н	+	+-	╫	+		$\dashv$	+	+	$\vdash$	╁┼	+	╁┼	+	ŀ		-	
Level Didata package GIN LOJAM (LONDOIL 10/08/20/1954 K. Wellydof Pack 10/8/28/1654		ADDITIONAL COMMENTS	RELIN	QUISHED BY/	AFFILIATION		DATE		TIME	166			ACCEP	TEO BY	IAR	FLIAT	ION	33	TT 1	DATE	第 加	TIME		186	SAMPLE CO	DITIONS	- 11
SAMPLER NAME AND SIGNATURE		Level Thata packerap	GIME	0249M	Kam	2011	10/08	120	I OF	41	1	INI	011	1/n	las	O	ric	0	11	Tal-	n 11	54	\$ 363000	CORN.			100
The should have been also as a second of the			70, 44	U	<u> </u>		<del></del> -	+	t Ch. c	7		V.V.1		1	1	10	~4/			142	7/14	<u>,                                    </u>		7			
The state of the s																,								J			
The should have been also as a second of the	_						and late		F													N. S. Decker		$\downarrow$			
SIGNATURE of SAMPLER: A A A A A COLONIA A DATE Signed: A DATE Sign						CARL TO	The same of the sa	0.0	<b>16</b>	<u>ا ما</u>			20		33	1	77	3	3.0	T- 5	N. S.	306	ي ا		§		
									70	V)		-	141 141 1	1		D	ATE.	Signed	.10	_			TEMP in		acetve in) in)	ated Dooler Ooler (N)	amples actC /N)

Sample Condition Upon Receipt Client Name: Ka Due Date: 10/15/20 CLIENT: GA-Ramboll Courier: Fed Ex UPS USPS Client Commercial Pace O Tracking #: Proj. Name: Seals intact: yes ☐ no **Custody Seal on Cooler/Box Present:** Bubble Bags None Other Packing Material: Bubble Wrap Samples on ice, cooling process has begun Thermometer Used Type of Ice: Wet Date and Initials of pe Biological Tissue is Frozen: Yes No **Cooler Temperature** contents: Temp should be above freezing to 6°C Comments EYes DNo DN/A 1. Chain of Custody Present: ØYes □No □N/A Chain of Custody Filled Out: Yes DNo DN/A 3. Chain of Custody Relinquished: Yes DNo □N/A 4. Sampler Name & Signature on COC: Yes DNo □N/A 5. Samples Arrived within Hold Time: □Yes □No □N/A 6. Short Hold Time Analysis (<72hr): □Yes Ino □N/A 7. Rush Turn Around Time Requested: Pres DNo □N/A 8. Sufficient Volume: Yes DNo □N/A 9. Correct Containers Used: Yes No □N/A -Pace Containers Used: ☐Yes ☐No □N/A Containers Intact; DIN/A □Yes □No 11. Filtered volume received for Dissolved tests ☐Yes ☐N6 □N/A 12. Sample Labels match COC: -Includes date/time/ID/Analysis All containers needing preservation have been checked. es No □N/A 13. All containers needing preservation are found to be in □N/A compliance with EPA recommendation. Lot # of added Initial when ☐Yes ☐No exceptions VOA coliform, TOC, O&G, WI-DRO (water) completed preservative DINA □Yes □No 14. Samples checked for dechlorination: □Yes Mo □N/A Headspace in VOA Vials ( >6mm): Blank present but not Yes ONo □N/A Trip Blank Present: TYes □No □N/A Trip Blank Custody Seals Present Pace Trip Blank Lot # (if purchased):

Client Notification/ Resolution:

Person Contacted:

Comments/ Resolution:

Project Manager Review:

Field Data Required?

Y / N

Date:

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)





November 25, 2020

Keith Cole Ramboll Environ US Corporation 1600 Parkwood Circle Suite 310 Atlanta, GA 30339

RE: Project: AWI Facility 1690019302 Pace Project No.: 92507313

#### Dear Keith Cole:

Enclosed are the analytical results for sample(s) received by the laboratory on November 19, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services Charlotte
- Pace Analytical Services Peachtree Corners, GA

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Nikita Kuruganty nikita.kuruganty@pacelabs.com (770)734-4200 Project Manager

Enclosures

cc: Aaron D. Hottenstein, PG, Ramboll Environ US

Corporation

Robert Patchett, Ramboll Environ





#### **CERTIFICATIONS**

Project: AWI Facility 1690019302

Pace Project No.: 92507313

**Pace Analytical Services Charlotte** 

9800 Kincey Ave. Ste 100, Huntersville, NC 28078 Louisiana/NELAP Certification # LA170028 North Carolina Drinking Water Certification #: 37706 North Carolina Field Services Certification #: 5342

North Carolina Wastewater Certification #: 12

Florida/NELAP Certification #: E87627 Kentucky UST Certification #: 84 Virginia/VELAP Certification #: 460221

South Carolina Certification #: 99006001

**Pace Analytical Services Peachtree Corners** 

110 Technology Pkwy, Peachtree Corners, GA 30092 Florida DOH Certification #: E87315 Georgia DW Inorganics Certification #: 812 Georgia DW Microbiology Certification #: 812 North Carolina Certification #: 381 South Carolina Certification #: 98011001 Virginia Certification #: 460204



## **SAMPLE SUMMARY**

Project: AWI Facility 1690019302

Pace Project No.: 92507313

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92507313001	MW-06R 20201119 MS/MSD	Water	11/19/20 10:35	11/19/20 16:45
92507313002	TB-01 20201119	Water	11/19/20 10:35	11/19/20 16:45



## **SAMPLE ANALYTE COUNT**

Project: AWI Facility 1690019302

Pace Project No.: 92507313

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92507313001	MW-06R 20201119 MS/MSD	EPA 8082A	SEM	8	PASI-C
		EPA 6010D	DRB	7	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 8270E	PKS	74	PASI-C
		EPA 8260D	PM1	63	PASI-C
92507313002	TB-01 20201119	EPA 8260D	PM1	63	PASI-C

PASI-C = Pace Analytical Services - Charlotte
PASI-GA = Pace Analytical Services - Peachtree Corners, GA



Project: AWI Facility 1690019302

Pace Project No.: 92507313

Date: 11/25/2020 11:04 AM

Sample: MW-06R 20201119 MS/MSD	D Lab ID: 9250	7313001	Collected: 11/19/2	20 10:35	Received: 11	/19/20 16:45	Matrix: Water		
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua	
082 GCS PCB RVE	Analytical Method: EPA 8082A Preparation Method: EPA 3510C								
	Pace Analytical Services - Charlotte								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.50	1	11/20/20 16:43	11/23/20 07:37	12674-11-2		
PCB-1221 (Aroclor 1221)	ND	ug/L	0.50	1	11/20/20 16:43				
PCB-1232 (Aroclor 1232)	ND	ug/L	0.50	1	11/20/20 16:43				
PCB-1242 (Aroclor 1242)	ND	ug/L	0.50	1	11/20/20 16:43				
PCB-1248 (Aroclor 1248)	ND	ug/L	0.50	1	11/20/20 16:43				
PCB-1254 (Aroclor 1254)	ND	ug/L	0.50	1	11/20/20 16:43				
PCB-1260 (Aroclor 1260)	ND	ug/L	0.50	1	11/20/20 16:43				
Surrogates	NB	ug/L	0.00	•	11/20/20 10.40	11/20/20 07:07	11000 02 0		
Decachlorobiphenyl (S)	82	%	10-181	1	11/20/20 16:43	11/23/20 07:37	2051-24-3		
010D ATL ICP	Analytical Meth	od: EPA 60	010D Preparation Me	ethod: Ef	PA 3010A				
	•		Peachtree Corners,						
rsenic	ND	ug/L	30.0	1	11/23/20 12:34	11/23/20 18:40	7440-38-2		
Barium	60.7	ug/L	10.0	1	11/23/20 12:34	11/23/20 18:40	7440-39-3		
Cadmium	ND	ug/L	10.0	1	11/23/20 12:34	11/23/20 18:40	7440-43-9		
Chromium	ND	ug/L	10.0	1	11/23/20 12:34				
illver	ND	ug/L	10.0	1	11/23/20 12:34				
ead	ND	ug/L	15.0	1	11/23/20 12:34				
Selenium	ND	ug/L	40.0	1		11/23/20 18:40			
		ug/L	70.0	,	11/23/20 12.34	11/23/20 10.40	1102 40 2		
7470 Mercury		Ü				11/25/20 10.40	7702 40 2		
470 Mercury	Analytical Meth	od: EPA 74	470A Preparation Me Peachtree Corners,	ethod: EF		11/23/20 10.40	7702 40 2		
•	Analytical Meth	od: EPA 74	470A Preparation Me	ethod: EF					
√ercury	Analytical Meth Pace Analytica ND	od: EPA 74   Services - ug/L	470A Preparation Me Peachtree Corners, 0.20	ethod: EF GA 1	PA 7470A 11/24/20 07:15				
Aercury	Analytical Meth Pace Analytica ND	od: EPA 74 I Services - ug/L od: EPA 82	470A Preparation Me Peachtree Corners, 0.20 270E Preparation Me	ethod: EF GA 1	PA 7470A 11/24/20 07:15				
Mercury 270E RVE	Analytical Meth Pace Analytica ND Analytical Meth Pace Analytica	od: EPA 74   Services - ug/L     Services -	470A Preparation Me Peachtree Corners, 0.20 270E Preparation Me Charlotte	ethod: EF GA 1 ethod: EF	PA 7470A 11/24/20 07:15 PA 3510C	11/24/20 11:55	7439-97-6	R1	
Mercury  270E RVE  .cenaphthene	Analytical Meth Pace Analytica ND Analytical Meth Pace Analytica ND	od: EPA 74 Services - ug/L od: EPA 82 Services - ug/L	470A Preparation Me Peachtree Corners, 0.20 270E Preparation Me Charlotte 10.0	ethod: EF GA 1 ethod: EF	PA 7470A 11/24/20 07:15 PA 3510C 11/23/20 17:28	11/24/20 11:55 11/24/20 13:35	7439-97-6 83-32-9	R1 R1	
Mercury  270E RVE  .cenaphthene .cenaphthylene	Analytical Meth Pace Analytica ND Analytical Meth Pace Analytica ND ND	od: EPA 74 I Services - ug/L od: EPA 82 I Services - ug/L ug/L	470A Preparation Me Peachtree Corners, 0.20 270E Preparation Me Charlotte 10.0 10.0	ethod: EF GA 1 ethod: EF 1	PA 7470A 11/24/20 07:15 PA 3510C 11/23/20 17:28 11/23/20 17:28	11/24/20 11:55 11/24/20 13:35 11/24/20 13:35	7439-97-6 8 83-32-9 9 208-96-8	R1 R1	
Mercury  270E RVE  .cenaphthene .cenaphthylene .niline	Analytical Meth Pace Analytica ND Analytical Meth Pace Analytica ND ND	od: EPA 74 I Services - ug/L od: EPA 82 I Services - ug/L ug/L ug/L	470A Preparation Me Peachtree Corners, 0.20 270E Preparation Me Charlotte 10.0 10.0	ethod: EF GA 1 ethod: EF 1 1	PA 7470A  11/24/20 07:15 PA 3510C  11/23/20 17:28 11/23/20 17:28 11/23/20 17:28	11/24/20 11:55 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35	7439-97-6 8 83-32-9 9 208-96-8 6 62-53-3		
Mercury  270E RVE  Accenaphthene Accenaphthylene Aniline Anthracene	Analytical Meth Pace Analytica ND Analytical Meth Pace Analytica ND ND ND	od: EPA 74 I Services - ug/L Services - ug/L ug/L ug/L ug/L ug/L	470A Preparation Me Peachtree Corners, 0.20 270E Preparation Me Charlotte 10.0 10.0 10.0	ethod: EF GA 1 ethod: EF 1 1 1	PA 7470A  11/24/20 07:15 PA 3510C  11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28	11/24/20 11:55 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35	7439-97-6 8 83-32-9 9 208-96-8 6 62-53-3 1 120-12-7		
Mercury  270E RVE  Accenaphthene Accenaphthylene Aniline Anthracene Benzo(a)anthracene	Analytical Meth Pace Analytica ND Analytical Meth Pace Analytica ND ND ND ND	od: EPA 74 I Services - ug/L od: EPA 82 I Services - ug/L ug/L ug/L ug/L ug/L ug/L	470A Preparation Me Peachtree Corners, 0.20 270E Preparation Me Charlotte 10.0 10.0 10.0 10.0	ethod: EF GA 1 ethod: EF 1 1 1 1	PA 7470A  11/24/20 07:15 PA 3510C  11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28	11/24/20 11:55 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35	7439-97-6 8 83-32-9 9 208-96-8 6 62-53-3 1 120-12-7 5 56-55-3		
Mercury  270E RVE  Accenaphthene Accenaphthylene Aniline Anthracene Benzo(a)anthracene Benzo(a)pyrene	Analytical Meth Pace Analytica ND Analytical Meth Pace Analytica ND ND ND ND ND	od: EPA 74 I Services - ug/L od: EPA 82 I Services - ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	270E Preparation Me Charlotte  10.0 10.0 10.0 10.0 10.0 10.0 10.0	ethod: EF GA 1 ethod: EF 1 1 1 1 1	PA 7470A  11/24/20 07:15 PA 3510C  11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28	11/24/20 11:55 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35	7439-97-6  83-32-9  208-96-8  62-53-3  120-12-7  56-55-3  50-32-8		
Aercury  270E RVE  Acenaphthene Acenaphthylene Aniline Anthracene Benzo(a)anthracene Benzo(b)fluoranthene	Analytical Meth Pace Analytica ND Analytical Meth Pace Analytica ND ND ND ND ND ND	od: EPA 74 I Services - ug/L od: EPA 82 I Services - ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	470A Preparation Me Peachtree Corners, 0.20 270E Preparation Me Charlotte  10.0 10.0 10.0 10.0 10.0 10.0 10.0	ethod: EF GA 1 ethod: EF 1 1 1 1 1	PA 7470A  11/24/20 07:15 PA 3510C  11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28	11/24/20 11:55 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35	7439-97-6  83-32-9 208-96-8 62-53-3 120-12-7 56-55-3 50-32-8 205-99-2		
Aercury  270E RVE  Accenaphthene Accenaphthylene Aniline Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene	Analytical Meth Pace Analytica ND Analytical Meth Pace Analytica ND ND ND ND ND ND ND	od: EPA 74 I Services - ug/L od: EPA 82 I Services - ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	470A Preparation Me Peachtree Corners, 0.20 270E Preparation Me Charlotte  10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	ethod: EF GA 1 ethod: EF 1 1 1 1 1 1	PA 7470A  11/24/20 07:15  PA 3510C  11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28	11/24/20 11:55 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35	7439-97-6  83-32-9  208-96-8  62-53-3  120-12-7  56-55-3  50-32-8  205-99-2  191-24-2		
Aercury  270E RVE  Acenaphthene Acenaphthylene Aniline Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene	Analytical Meth Pace Analytica ND Analytical Meth Pace Analytica ND ND ND ND ND ND ND ND	od: EPA 74 I Services - ug/L od: EPA 82 I Services - ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	470A Preparation Me Peachtree Corners, 0.20 270E Preparation Me Charlotte  10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	ethod: EF GA 1 ethod: EF 1 1 1 1 1 1 1	PA 7470A  11/24/20 07:15  PA 3510C  11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28	11/24/20 11:55 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35	7439-97-6  83-32-9  208-96-8  62-53-3  120-12-7  56-55-3  50-32-8  205-99-2  191-24-2  207-08-9	R1	
Accenaphthene accenaphthylene aniline anthracene denzo(a)anthracene denzo(b)fluoranthene denzo(g,h,i)perylene denzo(k)fluoranthene denzo(k)fluoranthene denzo(c) Acid	Analytical Metherace Analytical ND Analytical Metherace Analytical Metherace Analytical MD ND	od: EPA 74 I Services - ug/L od: EPA 82 I Services - ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	470A Preparation Me Peachtree Corners, 0.20 270E Preparation Me Charlotte  10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	ethod: EF GA 1 ethod: EF 1 1 1 1 1 1 1 1	PA 7470A  11/24/20 07:15  PA 3510C  11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28	11/24/20 11:55 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35	7439-97-6  83-32-9  208-96-8  62-53-3  120-12-7  56-55-3  50-32-8  205-99-2  191-24-2  207-08-9  65-85-0		
Accenaphthene accenaphthene accenaphthylene aniline anthracene aenzo(a)anthracene aenzo(a)pyrene aenzo(g,h,i)perylene aenzo(k)fluoranthene aenzo(k)fluoranthene aenzo(k)fluoranthene aenzoic Acid aenzyl alcohol	Analytical Metherace Analytical ND Analytical Metherace Analytical Metherace Analytical MD ND	od: EPA 74 I Services - ug/L od: EPA 82 I Services - ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	470A Preparation Me Peachtree Corners, 0.20 270E Preparation Me Charlotte  10.0 10.0 10.0 10.0 10.0 10.0 10.0 50.0 20.0	ethod: EF GA 1 ethod: EF 1 1 1 1 1 1 1 1 1	PA 7470A  11/24/20 07:15  PA 3510C  11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28	11/24/20 11:55 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35 11/24/20 13:35	7439-97-6  83-32-9  208-96-8  62-53-3  120-12-7  56-55-3  50-32-8  205-99-2  191-24-2  207-08-9  65-85-0  100-51-6	R1	
dercury  270E RVE  Acenaphthene Acenaphthylene Aniline Anthracene Benzo(a)anthracene Benzo(a)pyrene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Benzo(k)fluoranthene Benzo(c)anthylene Benzo(b)anthylene Benzo(b)	Analytical Metherace Analytical ND Analytical Metherace Analytical Metherace Analytical Metherace Analytical ND N	od: EPA 72 I Services - ug/L od: EPA 82 I Services - ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	470A Preparation Me Peachtree Corners, 0.20 270E Preparation Me Charlotte  10.0 10.0 10.0 10.0 10.0 10.0 20.0 10.0 1	ethod: EF GA 1 ethod: EF 1 1 1 1 1 1 1 1 1 1	PA 7470A  11/24/20 07:15  PA 3510C  11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28	11/24/20 11:55 11/24/20 13:35 11/24/20 13:35	7439-97-6  83-32-9  208-96-8  62-53-3  120-12-7  56-55-3  50-32-8  205-99-2  191-24-2  207-08-9  65-85-0  100-51-6  101-55-3	R1	
Mercury  270E RVE  Acenaphthene Acenaphthylene Aniline Anthracene Benzo(a)anthracene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Benzoic Acid Benzyl alcohol  -Bromophenylphenyl ether Butylbenzylphthalate	Analytical Metherace Analytical ND Analytical Metherace Analytical Metherace Analytical MD ND	od: EPA 74 I Services - ug/L od: EPA 82 I Services - ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	170A Preparation Me Peachtree Corners, 0.20 270E Preparation Me Charlotte  10.0 10.0 10.0 10.0 10.0 10.0 20.0 10.0 1	ethod: EF GA 1 ethod: EF 1 1 1 1 1 1 1 1 1 1 1	PA 7470A  11/24/20 07:15  PA 3510C  11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28	11/24/20 11:55 11/24/20 13:35 11/24/20 13:35	7439-97-6  83-32-9  208-96-8  62-53-3  120-12-7  56-55-3  50-32-8  205-99-2  191-24-2  207-08-9  65-85-0  100-51-6  101-55-3  85-68-7	R1	
Alercury  270E RVE  Accenaphthene Accenaphthylene Aniline Anthracene Benzo(a)anthracene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Benzoic Acid Benzyl alcohol Bromophenylphenyl ether Butylbenzylphthalate -Chloro-3-methylphenol	Analytical Metherace Analytical ND Analytical Metherace Analytical Metherace Analytical ND N	od: EPA 72 I Services - ug/L od: EPA 82 I Services - ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	170A Preparation Me Peachtree Corners, 0.20 270E Preparation Me Charlotte  10.0 10.0 10.0 10.0 10.0 10.0 20.0 10.0 1	ethod: EF GA  1  tethod: EF  1  1  1  1  1  1  1  1  1  1  1  1  1	PA 7470A  11/24/20 07:15  PA 3510C  11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28 11/23/20 17:28	11/24/20 11:55 11/24/20 13:35 11/24/20 13:35	7439-97-6  83-32-9  208-96-8  62-53-3  120-12-7  56-55-3  50-32-8  205-99-2  191-24-2  207-08-9  65-85-0  100-51-6  101-55-3  85-68-7  59-50-7	R1	
Mercury  270E RVE  Acenaphthene Acenaphthylene Aniline Anthracene Benzo(a)anthracene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Benzoic Acid Benzyl alcohol  -Bromophenylphenyl ether Butylbenzylphthalate  -Chloro-3-methylphenol  -Chloroaniline	Analytical Metherace Analytical ND Analytical Metherace Analytical Metherace Analytical ND N	od: EPA 72 I Services - ug/L od: EPA 82 I Services - ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	170A Preparation Me Peachtree Corners, 0.20 270E Preparation Me Charlotte  10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	ethod: EF GA  1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	PA 7470A  11/24/20 07:15  PA 3510C  11/23/20 17:28	11/24/20 11:55 11/24/20 13:35 11/24/20 13:35	7439-97-6  83-32-9  208-96-8  62-53-3  120-12-7  56-55-3  50-32-8  205-99-2  191-24-2  207-08-9  65-85-0  100-51-6  101-55-3  85-68-7  59-50-7  106-47-8	R1	
Alercury  270E RVE  Accenaphthene Accenaphthylene Aniline Anthracene Benzo(a)anthracene Benzo(b)fluoranthene Benzo(g,h,i)perylene Benzo(k)fluoranthene Benzol alcohol -Bromophenylphenyl ether Butylbenzylphthalate -Chloro-3-methylphenol -Chloroaniline Bis(2-Chloroethoxy)methane	Analytical Metherace Analytical ND Analytical Metherace Analytical Metherace Analytical ND N	od: EPA 72 I Services - ug/L od: EPA 82 I Services - ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	170A Preparation Me Peachtree Corners, 0.20 270E Preparation Me Charlotte  10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	ethod: EF GA  1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	PA 7470A  11/24/20 07:15  PA 3510C  11/23/20 17:28	11/24/20 11:55 11/24/20 13:35 11/24/20 13:35	7439-97-6  83-32-9 208-96-8 62-53-3 120-12-7 56-55-3 50-32-8 205-99-2 191-24-2 207-08-9 65-85-0 100-51-6 101-55-3 85-68-7 59-50-7 106-47-8 111-91-1	R1	
Mercury  Mer	Analytical Metherace Analytical ND Analytical Metherace Analytical Metherace Analytical ND N	od: EPA 72 I Services - ug/L od: EPA 82 I Services - ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	170A Preparation Me Peachtree Corners, 0.20 270E Preparation Me Charlotte  10.0 10.0 10.0 10.0 10.0 10.0 10.0 10	ethod: EF GA  1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	PA 7470A  11/24/20 07:15  PA 3510C  11/23/20 17:28	11/24/20 11:55 11/24/20 13:35 11/24/20 13:35	7439-97-6  83-32-9 208-96-8 62-53-3 120-12-7 56-55-3 50-32-8 205-99-2 191-24-2 207-08-9 65-85-0 100-51-6 101-55-3 85-68-7 59-50-7 106-47-8 111-91-1 111-44-4	R1	



Project: AWI Facility 1690019302

Pace Project No.: 92507313

Date: 11/25/2020 11:04 AM

Sample: MW-06R 20201119 MS/MSD	Lab ID:	92507313001	Collected:	11/19/2	20 10:35	Received: 11	/19/20 16:45 I	Matrix: Water	
Parameters	Results	Units	Report	t Limit	DF	Prepared	Analyzed	CAS No.	Qua
3270E RVE	Analytical	Method: EPA 82	270E Prepara	ation Me	ethod: EF	PA 3510C			
	Pace Ana	lytical Services -	Charlotte						
4-Chlorophenylphenyl ether	N	D ug/L		10.0	1	11/23/20 17:28	11/24/20 13:35	7005-72-3	
Chrysene	N	•		10.0	1	11/23/20 17:28	11/24/20 13:35		
Dibenz(a,h)anthracene	N	•		10.0	1	11/23/20 17:28			
Dibenzofuran	N	ū		10.0	1	11/23/20 17:28	11/24/20 13:35		R1
1,2-Dichlorobenzene	N	_		10.0	1	11/23/20 17:28	11/24/20 13:35		R1
I,3-Dichlorobenzene	N	_		10.0	1	11/23/20 17:28	11/24/20 13:35	541-73-1	R1
I,4-Dichlorobenzene	N	-		10.0	1		11/24/20 13:35		R1
3,3'-Dichlorobenzidine	N	•		20.0	1	11/23/20 17:28			
2,4-Dichlorophenol	N	ū		10.0	1		11/24/20 13:35		R1
Diethylphthalate	N	_		10.0	1	11/23/20 17:28			
2,4-Dimethylphenol	N	_		10.0	1	11/23/20 17:28	11/24/20 13:35		
Dimethylphthalate	N	-		10.0	1	11/23/20 17:28			
Di-n-butylphthalate	N	•		10.0	1	11/23/20 17:28			
I,6-Dinitro-2-methylphenol	N	•		20.0	1	11/23/20 17:28	11/24/20 13:35		M1
2,4-Dinitrophenol	N	ū		50.0	1	11/23/20 17:28	11/24/20 13:35		M1
2,4-Dinitrotoluene	N	_		10.0	1	11/23/20 17:28	11/24/20 13:35		
t,6-Dinitrotoluene	N	-		10.0	1		11/24/20 13:35		
Di-n-octylphthalate	N	•		10.0	1	11/23/20 17:28			
is(2-Ethylhexyl)phthalate	N	ū		6.0	1	11/23/20 17:28			
Fluoranthene	N	_		10.0	1	11/23/20 17:28			
luorene	N	_		10.0	1	11/23/20 17:28	11/24/20 13:35	86-73-7	
lexachloro-1,3-butadiene	N	-		10.0	1	11/23/20 17:28			
Hexachlorobenzene	N	•		10.0	1	11/23/20 17:28			
Hexachlorocyclopentadiene	N	ū		10.0	1	11/23/20 17:28	11/24/20 13:35	77-47-4	
Hexachloroethane	N	_		10.0	1	11/23/20 17:28	11/24/20 13:35		
ndeno(1,2,3-cd)pyrene	N	_		10.0	1	11/23/20 17:28	11/24/20 13:35	193-39-5	
sophorone	N	•		10.0	1	11/23/20 17:28	11/24/20 13:35	78-59-1	
-Methylnaphthalene	N	•		10.0	1	11/23/20 17:28	11/24/20 13:35	90-12-0	R1
2-Methylnaphthalene	N	_		10.0	1	11/23/20 17:28	11/24/20 13:35	91-57-6	R1
2-Methylphenol(o-Cresol)	N	_		10.0	1	11/23/20 17:28	11/24/20 13:35	95-48-7	
3&4-Methylphenol(m&p Cresol)	N	_		10.0	1	11/23/20 17:28	11/24/20 13:35	15831-10-4	
Naphthalene	N	-		10.0	1	11/23/20 17:28	11/24/20 13:35	91-20-3	R1
2-Nitroaniline	N	•		20.0	1	11/23/20 17:28	11/24/20 13:35	88-74-4	
3-Nitroaniline	N	ū		20.0	1	11/23/20 17:28	11/24/20 13:35	99-09-2	
I-Nitroaniline	N	_		20.0	1	11/23/20 17:28	11/24/20 13:35	100-01-6	
Nitrobenzene	N			10.0	1	11/23/20 17:28	11/24/20 13:35		
2-Nitrophenol	N	•		10.0	1	11/23/20 17:28			R1
-Nitrophenol	N	•		50.0	1	11/23/20 17:28	11/24/20 13:35	100-02-7	M1
N-Nitrosodimethylamine	N	•		10.0	1	11/23/20 17:28			
N-Nitroso-di-n-propylamine	N	•		10.0	1	11/23/20 17:28	11/24/20 13:35	621-64-7	R1
N-Nitrosodiphenylamine	N	•		10.0	1	11/23/20 17:28			
2,2'-Oxybis(1-chloropropane)	N	•		10.0	1	11/23/20 17:28			R1
Pentachlorophenol	N	•		20.0	1	11/23/20 17:28			M1
Phenanthrene	N	•		10.0	1	11/23/20 17:28			
Phenol	N	•		10.0	1	11/23/20 17:28			
Pyrene	N	•		10.0	1	11/23/20 17:28			



Project: AWI Facility 1690019302

Pace Project No.: 92507313

Date: 11/25/2020 11:04 AM

Sample: MW-06R 20201119 MS/MSD	Lab ID:	92507313001	Collected:	11/19/2	0 10:35	Received: 1	1/19/20 16:45	Matrix: Water	
Parameters	Results	Units	Report	t Limit	DF	Prepared	Analyzed	CAS No.	Qua
8270E RVE	Analytical	Method: EPA 82	270E Prepara	ation Me	thod: Ef	PA 3510C			
	Pace Anal	ytical Services -	- Charlotte						
1,2,4-Trichlorobenzene	NE	O ug/L		10.0	1	11/23/20 17:28	3 11/24/20 13:3	5 120-82-1	R1
2,4,5-Trichlorophenol	NE	U		10.0	1		3 11/24/20 13:3		R1
2,4,6-Trichlorophenol	N	J		10.0	1		3 11/24/20 13:3		
Surrogates		<i>∝g,</i> =			-	, _ 0, _ 0 0	,,_0 .0.0	0 00 00 =	
Nitrobenzene-d5 (S)	80	0 %		10-144	1	11/23/20 17:28	3 11/24/20 13:3	5 4165-60-0	
2-Fluorobiphenyl (S)	6	7 %		10-130	1	11/23/20 17:28	3 11/24/20 13:3	5 321-60-8	
Terphenyl-d14 (S)	11:	3 %	;	34-163	1	11/23/20 17:28	3 11/24/20 13:3	5 1718-51-0	
Phenol-d6 (S)	34	4 %		10-130	1	11/23/20 17:28	3 11/24/20 13:3	5 13127-88-3	
2-Fluorophenol (S)	2	1 %		10-130	1	11/23/20 17:28	3 11/24/20 13:3	5 367-12-4	
2,4,6-Tribromophenol (S)	3			10-144	1		3 11/24/20 13:3		
8260D MSV Low Level Landfill	Analytical	Method: EPA 82	260D						
ozooz mov zow zover zanami	•	ytical Services							
Acetone	NE	•		25.0	1		11/21/20 05:4	0 67 64 4	
		•							
Benzene	NE	0		1.0	1		11/21/20 05:4		
Bromobenzene	NE	Ū		1.0	1		11/21/20 05:4		
3romochloromethane	NE	J		1.0	1		11/21/20 05:4		
Bromodichloromethane	NE	J		1.0	1		11/21/20 05:4		_
Bromoform	NE	J		1.0	1		11/21/20 05:4		v1
Bromomethane	NE	0		2.0	1		11/21/20 05:4		
2-Butanone (MEK)	NI	Ū		5.0	1		11/21/20 05:4		
Carbon tetrachloride	NE	J		1.0	1		11/21/20 05:4		
Chlorobenzene	NE	J		1.0	1		11/21/20 05:4		
Chloroethane	NE	J		1.0	1		11/21/20 05:4		
Chloroform	NE	0		5.0	1		11/21/20 05:4		
Chloromethane	1.0	•		1.0	1		11/21/20 05:4		v2
2-Chlorotoluene	NE	J		1.0	1		11/21/20 05:4		
4-Chlorotoluene	NE	J		1.0	1		11/21/20 05:4		
1,2-Dibromo-3-chloropropane	NE	J		5.0	1		11/21/20 05:4		
Dibromochloromethane	NE	0		1.0	1		11/21/20 05:4		
1,2-Dibromoethane (EDB)	NE	O ug/L		1.0	1		11/21/20 05:4		
Dibromomethane	NE	O ug/L		1.0	1		11/21/20 05:4		
1,2-Dichlorobenzene	NE	O ug/L		1.0	1		11/21/20 05:4	9 95-50-1	
1,3-Dichlorobenzene	NI	O ug/L		1.0	1		11/21/20 05:4	9 541-73-1	
1,4-Dichlorobenzene	NE	) ug/L		1.0	1		11/21/20 05:4	9 106-46-7	
Dichlorodifluoromethane	NE	) ug/L		1.0	1		11/21/20 05:4	9 75-71-8	
1,1-Dichloroethane	NI	O ug/L		1.0	1		11/21/20 05:4	9 75-34-3	
1,2-Dichloroethane	NE	) ug/L		1.0	1		11/21/20 05:4		
1,1-Dichloroethene	NE	•		1.0	1		11/21/20 05:4		
cis-1,2-Dichloroethene	NE	O ug/L		1.0	1		11/21/20 05:4		
trans-1,2-Dichloroethene	NE	O ug/L		1.0	1		11/21/20 05:4	9 156-60-5	
1,2-Dichloropropane	N	O ug/L		1.0	1		11/21/20 05:4	9 78-87-5	
1,3-Dichloropropane	NE			1.0	1		11/21/20 05:4	9 142-28-9	
2,2-Dichloropropane	NE	O ug/L		1.0	1		11/21/20 05:4	9 594-20-7	
1,1-Dichloropropene	NE	_		1.0	1		11/21/20 05:4	9 563-58-6	
cis-1,3-Dichloropropene	NI	•		1.0	1			9 10061-01-5	



Project: AWI Facility 1690019302

Pace Project No.: 92507313

Date: 11/25/2020 11:04 AM

Sample: MW-06R 20201119 MS/MSD	Lab ID: 925	07313001	Collected: 11/19/2	0 10:35	Received: 1	1/19/20 16:45 N	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
8260D MSV Low Level Landfill	Analytical Meth	nod: EPA 82	260D					
	Pace Analytica	I Services -	Charlotte					
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/21/20 05:49	10061-02-6	
Diisopropyl ether	ND	ug/L	1.0	1		11/21/20 05:49	108-20-3	
Ethylbenzene	ND	ug/L	1.0	1		11/21/20 05:49	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/21/20 05:49	87-68-3	
2-Hexanone	ND	ug/L	5.0	1		11/21/20 05:49	591-78-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/21/20 05:49	99-87-6	
Methylene Chloride	ND	ug/L	5.0	1		11/21/20 05:49	75-09-2	M1
4-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/21/20 05:49	108-10-1	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/21/20 05:49	1634-04-4	
Naphthalene	ND	ug/L	1.0	1		11/21/20 05:49	91-20-3	
Styrene	ND	ug/L	1.0	1		11/21/20 05:49	100-42-5	
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/21/20 05:49	630-20-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/21/20 05:49	79-34-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/21/20 05:49	127-18-4	
Toluene	ND	ug/L	1.0	1		11/21/20 05:49	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/21/20 05:49	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/21/20 05:49	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/21/20 05:49	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/21/20 05:49	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/21/20 05:49	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/21/20 05:49	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/21/20 05:49	96-18-4	M1
Vinyl acetate	ND	ug/L	2.0	1		11/21/20 05:49	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/21/20 05:49	75-01-4	v2
Xylene (Total)	ND	ug/L	1.0	1		11/21/20 05:49	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/21/20 05:49	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/21/20 05:49	95-47-6	
Surrogates		-						
4-Bromofluorobenzene (S)	104	%	70-130	1		11/21/20 05:49	460-00-4	
1,2-Dichloroethane-d4 (S)	119	%	70-130	1		11/21/20 05:49	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1		11/21/20 05:49	2037-26-5	



Project: AWI Facility 1690019302

Pace Project No.: 92507313

Date: 11/25/2020 11:04 AM

Sample: TB-01 20201119	Lab ID: 92	507313002	Collected: 11/19/2	20 10:35	Received:	11/19/20 16:45	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
3260D MSV Low Level Landfill	Analytical Me	thod: EPA 82	260D					
	Pace Analytic	al Services -	Charlotte					
Acetone	ND	ug/L	25.0	1		11/20/20 23:49	9 67-64-1	
Benzene	ND	ug/L	1.0	1		11/20/20 23:49	9 71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/20/20 23:49	9 108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/20/20 23:49	9 74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/20/20 23:49	9 75-27-4	
Bromoform	ND	ug/L	1.0	1		11/20/20 23:49		v1
Bromomethane	ND	ug/L	2.0	1		11/20/20 23:49		
2-Butanone (MEK)	ND	ug/L	5.0	1		11/20/20 23:49		
Carbon tetrachloride	ND	ug/L	1.0	1		11/20/20 23:49		
Chlorobenzene	ND	ug/L	1.0	1		11/20/20 23:49		
Chloroethane	ND	ug/L	1.0	1		11/20/20 23:49		
Chloroform	ND	ug/L	5.0	1		11/20/20 23:49		
Chloromethane	ND	ug/L	1.0	1		11/20/20 23:49		v2
2-Chlorotoluene	ND	ug/L	1.0	1		11/20/20 23:49		•-
4-Chlorotoluene	ND	ug/L	1.0	1		11/20/20 23:49		
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		11/20/20 23:49		
Dibromochloromethane	ND	ug/L	1.0	1		11/20/20 23:49		
,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/20/20 23:49		
Dibromomethane	ND	ug/L	1.0	1		11/20/20 23:49		
.2-Dichlorobenzene	ND	ug/L	1.0	1		11/20/20 23:49		
,3-Dichlorobenzene	ND ND	ug/L ug/L	1.0	1		11/20/20 23:49		
,4-Dichlorobenzene	ND ND	ug/L ug/L	1.0	1		11/20/20 23:49		
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/20/20 23:49		
1,1-Dichloroethane	ND ND	ug/L ug/L	1.0	1		11/20/20 23:49		
,2-Dichloroethane	ND ND	ug/L ug/L	1.0	1		11/20/20 23:49		
1,1-Dichloroethene	ND ND	-	1.0	1		11/20/20 23:49		
cis-1,2-Dichloroethene	ND ND	ug/L ug/L	1.0	1		11/20/20 23:49		
rans-1,2-Dichloroethene	ND ND	ug/L ug/L	1.0	1		11/20/20 23:49		
·	ND ND	-	1.0	1		11/20/20 23:49		
1,2-Dichloropropane	ND ND	ug/L		1		11/20/20 23:49		
1,3-Dichloropropane 2,2-Dichloropropane	ND ND	ug/L	1.0 1.0	1		11/20/20 23:49		
1,1-Dichloropropene	ND ND	ug/L	1.0	1		11/20/20 23:49		
• •	ND ND	ug/L	1.0	1		11/20/20 23:49		
cis-1,3-Dichloropropene		ug/L		1			9 10061-01-5	
rans-1,3-Dichloropropene	ND	ug/L	1.0	1				
Diisopropyl ether	ND	ug/L	1.0	1		11/20/20 23:49		
Ethylbenzene	ND	ug/L	1.0	1		11/20/20 23:49		
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/20/20 23:49		
2-Hexanone	ND	ug/L	5.0	1		11/20/20 23:49		
o-Isopropyltoluene	ND	ug/L	1.0	1		11/20/20 23:49		
Methylene Chloride	ND	ug/L	5.0	1		11/20/20 23:49		
-Methyl-2-pentanone (MIBK)	ND	ug/L	5.0	1		11/20/20 23:49		
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/20/20 23:49		
laphthalene	ND	ug/L	1.0	1		11/20/20 23:49		
styrene	ND	ug/L	1.0	1		11/20/20 23:49		
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/20/20 23:49		
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/20/20 23:49	9 79-34-5	



Project: AWI Facility 1690019302

Pace Project No.: 92507313

Date: 11/25/2020 11:04 AM

Sample: TB-01 20201119	Lab ID: 925	07313002	Collected: 11/19/2	0 10:35	Received: 1	1/19/20 16:45	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
8260D MSV Low Level Landfill	Analytical Met	nod: EPA 82	60D					
	Pace Analytica	al Services -	Charlotte					
Tetrachloroethene	ND	ug/L	1.0	1		11/20/20 23:49	127-18-4	
Toluene	ND	ug/L	1.0	1		11/20/20 23:49	108-88-3	
1,2,3-Trichlorobenzene	ND	ug/L	1.0	1		11/20/20 23:49	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/20/20 23:49	120-82-1	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/20/20 23:49	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/20/20 23:49	79-00-5	
Trichloroethene	ND	ug/L	1.0	1		11/20/20 23:49	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/20/20 23:49	75-69-4	
1,2,3-Trichloropropane	ND	ug/L	1.0	1		11/20/20 23:49	96-18-4	
Vinyl acetate	ND	ug/L	2.0	1		11/20/20 23:49	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/20/20 23:49	75-01-4	v2
Xylene (Total)	ND	ug/L	1.0	1		11/20/20 23:49	1330-20-7	
m&p-Xylene	ND	ug/L	2.0	1		11/20/20 23:49	179601-23-1	
o-Xylene	ND	ug/L	1.0	1		11/20/20 23:49	95-47-6	
Surrogates		-						
4-Bromofluorobenzene (S)	103	%	70-130	1		11/20/20 23:49	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	70-130	1		11/20/20 23:49	17060-07-0	
Toluene-d8 (S)	100	%	70-130	1		11/20/20 23:49	2037-26-5	



Project: AWI Facility 1690019302

Pace Project No.: 92507313

Date: 11/25/2020 11:04 AM

QC Batch: 582337 Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92507313001

METHOD BLANK: 3079660 Matrix: Water

Associated Lab Samples: 92507313001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	ug/L	ND	30.0	11/23/20 18:30	
Barium	ug/L	ND	10.0	11/23/20 18:30	
Cadmium	ug/L	ND	10.0	11/23/20 18:30	
Chromium	ug/L	ND	10.0	11/23/20 18:30	
Lead	ug/L	ND	15.0	11/23/20 18:30	
Selenium	ug/L	ND	40.0	11/23/20 18:30	
Silver	ug/L	ND	10.0	11/23/20 18:30	

LABORATORY CONTROL SAMPLE:	3079661					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Arsenic	ug/L	1000	938	94	80-120	
Barium	ug/L	1000	950	95	80-120	
Cadmium	ug/L	1000	911	91	80-120	
Chromium	ug/L	1000	910	91	80-120	
Lead	ug/L	1000	909	91	80-120	
Selenium	ug/L	1000	913	91	80-120	
Silver	ug/L	1000	914	91	80-120	

MATRIX SPIKE & MATRIX	SPIKE DUPL	ICATE: 3079		MCD	3079663							
		92507313001	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Arsenic	ug/L	 ND	1000	1000	968	955	96	95	75-125	1	20	
Barium	ug/L	60.7	1000	1000	1010	1020	95	96	75-125	2	20	
Cadmium	ug/L	ND	1000	1000	931	908	93	91	75-125	2	20	
Chromium	ug/L	ND	1000	1000	913	921	91	92	75-125	1	20	
Lead	ug/L	ND	1000	1000	956	979	96	98	75-125	2	20	
Selenium	ug/L	ND	1000	1000	915	896	91	90	75-125	2	20	
Silver	ug/L	ND	1000	1000	916	932	92	93	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project:

AWI Facility 1690019302

Pace Project No.:

92507313

QC Batch:

582393

QC Batch Method:

EPA 7470A

Analysis Method:

EPA 7470A

Analysis Description:

7470 Mercury

Laboratory:

Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples:

92507313001

METHOD BLANK:

Matrix: Water

Associated Lab Samples:

92507313001

Blank Result Reporting Limit

Analyzed

Qualifiers

Mercury

Units ug/L

ND

0.20 11/24/20 11:43

LABORATORY CONTROL SAMPLE:

Parameter

Parameter

3079928

Spike

LCS Result

LCS % Rec % Rec Limits

Mercury

Units

ug/L

Conc. 2.5

2.4

80-120

Qualifiers

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:

3079929

MSD

92507313001

MS Spike Conc.

Spike Conc.

MSD Result

MS % Rec

MSD % Rec

% Rec

Max RPD

Mercury

Parameter Units Result

ug/L

ND

Result

3079930

MS

96

**RPD** Limits

Qual

Date: 11/25/2020 11:04 AM

2.5 2.5 2.5 2.4 98

95 75-125

20 3

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507313

Date: 11/25/2020 11:04 AM

QC Batch: 582006 Analysis Method: EPA 8260D

QC Batch Method: EPA 8260D Analysis Description: 8260D MSV Low Level Landfill

Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92507313002

METHOD BLANK: 3078308 Matrix: Water

Associated Lab Samples: 92507313002

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	11/20/20 23:13	·
1,1,1-Trichloroethane	ug/L	ND	1.0	11/20/20 23:13	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	11/20/20 23:13	
1,1,2-Trichloroethane	ug/L	ND	1.0	11/20/20 23:13	
1,1-Dichloroethane	ug/L	ND	1.0	11/20/20 23:13	
1,1-Dichloroethene	ug/L	ND	1.0	11/20/20 23:13	
1,1-Dichloropropene	ug/L	ND	1.0	11/20/20 23:13	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	11/20/20 23:13	
1,2,3-Trichloropropane	ug/L	ND	1.0	11/20/20 23:13	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	11/20/20 23:13	
1,2-Dibromo-3-chloropropane	ug/L	ND	5.0	11/20/20 23:13	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	11/20/20 23:13	
1,2-Dichlorobenzene	ug/L	ND	1.0	11/20/20 23:13	
1,2-Dichloroethane	ug/L	ND	1.0	11/20/20 23:13	
1,2-Dichloropropane	ug/L	ND	1.0	11/20/20 23:13	
1,3-Dichlorobenzene	ug/L	ND	1.0	11/20/20 23:13	
1,3-Dichloropropane	ug/L	ND	1.0	11/20/20 23:13	
1,4-Dichlorobenzene	ug/L	ND	1.0	11/20/20 23:13	
2,2-Dichloropropane	ug/L	ND	1.0	11/20/20 23:13	
2-Butanone (MEK)	ug/L	ND	5.0	11/20/20 23:13	
2-Chlorotoluene	ug/L	ND	1.0	11/20/20 23:13	
2-Hexanone	ug/L	ND	5.0	11/20/20 23:13	
4-Chlorotoluene	ug/L	ND	1.0	11/20/20 23:13	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	11/20/20 23:13	
Acetone	ug/L	ND	25.0	11/20/20 23:13	
Benzene	ug/L	ND	1.0	11/20/20 23:13	
Bromobenzene	ug/L	ND	1.0	11/20/20 23:13	
Bromochloromethane	ug/L	ND	1.0	11/20/20 23:13	
Bromodichloromethane	ug/L	ND	1.0	11/20/20 23:13	
Bromoform	ug/L	ND	1.0	11/20/20 23:13	v1
Bromomethane	ug/L	ND	2.0	11/20/20 23:13	
Carbon tetrachloride	ug/L	ND	1.0	11/20/20 23:13	
Chlorobenzene	ug/L	ND	1.0	11/20/20 23:13	
Chloroethane	ug/L	ND	1.0	11/20/20 23:13	
Chloroform	ug/L	ND	5.0	11/20/20 23:13	
Chloromethane	ug/L	ND	1.0	11/20/20 23:13	v2
cis-1,2-Dichloroethene	ug/L	ND	1.0	11/20/20 23:13	
cis-1,3-Dichloropropene	ug/L	ND	1.0	11/20/20 23:13	
Dibromochloromethane	ug/L	ND	1.0	11/20/20 23:13	
Dibromomethane	ug/L	ND	1.0	11/20/20 23:13	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507313

Date: 11/25/2020 11:04 AM

METHOD BLANK: 3078308 Matrix: Water

Associated Lab Samples: 92507313002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
					- Qualificis
Dichlorodifluoromethane	ug/L	ND	1.0	11/20/20 23:13	
Diisopropyl ether	ug/L	ND	1.0	11/20/20 23:13	
Ethylbenzene	ug/L	ND	1.0	11/20/20 23:13	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	11/20/20 23:13	
m&p-Xylene	ug/L	ND	2.0	11/20/20 23:13	
Methyl-tert-butyl ether	ug/L	ND	1.0	11/20/20 23:13	
Methylene Chloride	ug/L	ND	5.0	11/20/20 23:13	
Naphthalene	ug/L	ND	1.0	11/20/20 23:13	
o-Xylene	ug/L	ND	1.0	11/20/20 23:13	
p-Isopropyltoluene	ug/L	ND	1.0	11/20/20 23:13	
Styrene	ug/L	ND	1.0	11/20/20 23:13	
Tetrachloroethene	ug/L	ND	1.0	11/20/20 23:13	
Toluene	ug/L	ND	1.0	11/20/20 23:13	
trans-1,2-Dichloroethene	ug/L	ND	1.0	11/20/20 23:13	
trans-1,3-Dichloropropene	ug/L	ND	1.0	11/20/20 23:13	
Trichloroethene	ug/L	ND	1.0	11/20/20 23:13	
Trichlorofluoromethane	ug/L	ND	1.0	11/20/20 23:13	
Vinyl acetate	ug/L	ND	2.0	11/20/20 23:13	
Vinyl chloride	ug/L	ND	1.0	11/20/20 23:13	v2
Xylene (Total)	ug/L	ND	1.0	11/20/20 23:13	
1,2-Dichloroethane-d4 (S)	%	115	70-130	11/20/20 23:13	
4-Bromofluorobenzene (S)	%	101	70-130	11/20/20 23:13	
Toluene-d8 (S)	%	99	70-130	11/20/20 23:13	

LABORATORY CONTROL SAMPLE:	3078309					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	57.2	114	70-130	
1,1,1-Trichloroethane	ug/L	50	53.9	108	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	47.7	95	70-130	
1,1,2-Trichloroethane	ug/L	50	51.9	104	70-130	
1,1-Dichloroethane	ug/L	50	46.7	93	70-130	
1,1-Dichloroethene	ug/L	50	52.4	105	70-132	
1,1-Dichloropropene	ug/L	50	48.2	96	70-131	
1,2,3-Trichlorobenzene	ug/L	50	53.1	106	70-134	
1,2,3-Trichloropropane	ug/L	50	53.1	106	70-130	
1,2,4-Trichlorobenzene	ug/L	50	52.5	105	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	58.4	117	70-132	
1,2-Dibromoethane (EDB)	ug/L	50	53.9	108	70-130	
1,2-Dichlorobenzene	ug/L	50	52.1	104	70-130	
1,2-Dichloroethane	ug/L	50	54.2	108	70-130	
1,2-Dichloropropane	ug/L	50	47.8	96	70-130	
1,3-Dichlorobenzene	ug/L	50	50.1	100	70-130	
1,3-Dichloropropane	ug/L	50	51.4	103	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507313

Date: 11/25/2020 11:04 AM

LABORATORY CONTROL SAMPLE	: 3078309	Spike	LCS	LCS	% Rec
Parameter	Units	Conc.	Result	% Rec	Limits Qualifier
1,4-Dichlorobenzene	ug/L		50.5	101	70-130
2,2-Dichloropropane	ug/L	50	53.4	107	70-130
2-Butanone (MEK)	ug/L	100	95.6	96	70-133
2-Chlorotoluene	ug/L	50	50.5	101	70-130
2-Hexanone	ug/L	100	103	103	70-130
I-Chlorotoluene	ug/L	50	49.5	99	70-130
I-Methyl-2-pentanone (MIBK)	ug/L	100	100	100	70-130
Acetone	ug/L	100	107	107	70-144
Benzene	ug/L	50	47.0	94	70-130
Bromobenzene	ug/L	50	48.9	98	70-130
romochloromethane	ug/L	50	47.7	95	70-130
Bromodichloromethane	ug/L	50	55.4	111	70-130
Bromoform	ug/L	50	61.2	122	70-131 v1
Bromomethane	ug/L	50	46.1	92	30-177
Carbon tetrachloride	ug/L	50	58.7	117	70-130
Chlorobenzene	ug/L	50	50.0	100	70-130
Chloroethane	ug/L	50	49.4	99	46-131
Chloroform	ug/L	50	51.8	104	70-130
Chloromethane	ug/L	50	38.5	77	49-130 v3
is-1,2-Dichloroethene	ug/L	50	47.0	94	70-130
is-1,3-Dichloropropene	ug/L	50	54.7	109	70-130
Dibromochloromethane	ug/L	50	57.7	115	70-130
bibromomethane	ug/L	50	54.8	110	70-130
Dichlorodifluoromethane	ug/L	50	49.3	99	52-134
Diisopropyl ether	ug/L	50	42.6	85	70-131
Ethylbenzene	ug/L	50	49.9	100	70-130
lexachloro-1,3-butadiene	ug/L	50	56.5	113	70-131
n&p-Xylene	ug/L	100	104	104	70-130
Nethyl-tert-butyl ether	ug/L	50	49.4	99	70-130
Methylene Chloride	ug/L	50	43.3	87	68-130
laphthalene	ug/L	50	55.0	110	70-133
-Xylene	ug/L	50	50.1	100	70-130
-Isopropyltoluene	ug/L	50	50.7	101	70-130
Styrene	ug/L	50 50	51.9	104	70-130
etrachloroethene	ug/L	50 50	49.5	99	70-130 70-130
oluene	ug/L ug/L	50 50	49.5 49.2	98	70-130 70-130
rans-1,2-Dichloroethene	ug/L	50 50	46.8	94	70-130
rans-1,3-Dichloropropene	ug/L ug/L	50 50	46.8 57.4	115	70-130 70-130
		50 50	57.4 53.1	106	70-130 70-130
richloroethene richlorofluoromethane	ug/L	50 50	53.1 52.6	105	70-130 61-130
inyl acetate	ug/L			110	70-140
	ug/L	100	110		
/inyl chloride	ug/L	50 150	39.3	79 103	59-142 v3
(ylene (Total)	ug/L	150	154	103	70-130
,2-Dichloroethane-d4 (S)	%			118	70-130
-Bromofluorobenzene (S)	%			104	70-130
Toluene-d8 (S)	%			100	70-130

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

## **REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.



Project: AWI Facility 1690019302

Pace Project No.: 92507313

Date: 11/25/2020 11:04 AM

MATRIX SPIKE & MATRIX SI	PIKE DUPI	LICATE: 3078			3078311							
			MS	MSD								
Parameter	Units	92506794007 Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qua
I,1,1,2-Tetrachloroethane	ug/L	ND	20	20	19.9	18.7	100	94	70-135	6	30	
,1,1-Trichloroethane	ug/L	ND	20	20	20.5	19.7	102	98	70-148	4		
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	16.2	15.1	81	75	70-131	8		
1,1,2-Trichloroethane	ug/L	ND	20	20	18.3	16.1	92	80	70-136	13		
I,1-Dichloroethane	ug/L	ND	20	20	17.1	16.3	86	82	70-147	5		
I.1-Dichloroethene	ug/L	ND	20	20	19.6	18.6	98	93	70-158	5		
I,1-Dichloropropene	ug/L	ND	20	20	17.9	16.9	89	85	70-149	5		
1,2,3-Trichlorobenzene	ug/L	ND	20	20	18.6	15.9	93	80	68-140	16		
1,2,3-Trichloropropane	ug/L	ND	20	20	12.5	11.5	62	58	67-137	8		M1
1,2,4-Trichlorobenzene	ug/L	ND	20	20	19.1	16.3	95	81	70-139	16		
1,2-Dibromo-3-	ug/L	ND	20	20	20.4	15.9	102	80	69-136	24		
chloropropane	ug/ <b>L</b>	110	20	20	20.1	10.0	102	00	00 100		00	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	18.3	16.9	91	84	70-137	8	30	
1,2-Dichlorobenzene	ug/L	ND	20	20	18.4	16.7	92	83	70-133	10	30	
I,2-Dichloroethane	ug/L	ND	20	20	20.0	19.2	100	96	67-138	4	30	
1,2-Dichloropropane	ug/L	ND	20	20	17.3	15.5	87	78	70-138	11	30	
,3-Dichlorobenzene	ug/L	ND	20	20	19.3	16.7	96	84	70-133	14	30	
,3-Dichloropropane	ug/L	ND	20	20	17.6	16.6	88	83	70-136	6	30	
,4-Dichlorobenzene	ug/L	ND	20	20	18.3	17.1	91	85	70-133	7	30	
2,2-Dichloropropane	ug/L	ND	20	20	20.7	19.3	104	97	52-155	7	30	
2-Butanone (MEK)	ug/L	ND	40	40	32.2	30.3	80	76	61-147	6	30	
2-Chlorotoluene	ug/L	ND	20	20	19.3	17.2	96	86	70-141	11	30	
2-Hexanone	ug/L	ND	40	40	32.9	29.4	82	73	67-139	11	30	
1-Chlorotoluene	ug/L	ND	20	20	18.5	16.9	93	85	70-135	9	30	
1-Methyl-2-pentanone MIBK)	ug/L	ND	40	40	31.4	28.2	78	70	67-136	11	30	
Acetone	ug/L	ND	40	40	33.2	30.6	83	77	55-159	8	30	
Benzene	ug/L	ND	20	20	17.1	15.4	85	77	67-150	10	30	
Bromobenzene	ug/L	ND	20	20	18.2	16.3	91	82	70-134	11	30	
Bromochloromethane	ug/L	ND	20	20	17.4	17.2	87	86	70-146	2	30	
Bromodichloromethane	ug/L	ND	20	20	19.8	17.9	99	90	70-138	10	30	
Bromoform	ug/L	ND	20	20	19.6	18.2	98	91	57-138	8	30	v1
Bromomethane	ug/L	ND	20	20	20.6	21.4	103	107	10-200	4		v3
Carbon tetrachloride	ug/L	ND	20	20	25.7	20.3	129	101	70-147	24	30	v1
Chlorobenzene	ug/L	ND	20	20	18.6	17.0	93	85	70-137	9	30	
Chloroethane	ug/L	ND	20	20	16.7	17.2	84	86	51-166	3	30	
Chloroform	ug/L	ND	20	20	18.3	17.8	91	89	70-144	2		
Chloromethane	ug/L	ND	20	20	14.1	13.4	71	67	24-161	5		v3
is-1,2-Dichloroethene	ug/L	ND	20	20	16.7	15.6	84	78	67-148	7		
is-1,3-Dichloropropene	ug/L	ND	20	20	18.7	16.4	93	82	70-142	13	30	
Dibromochloromethane	ug/L	ND	20	20	19.4	18.1	97	90	68-138	7	30	
Dibromomethane	ug/L	ND	20	20	19.3	18.8	96	94	70-134	3	30	
Dichlorodifluoromethane	ug/L	ND	20	20	18.7	18.5	93	92	43-155	1	30	
Diisopropyl ether	ug/L	ND	20	20	14.1	13.1	71	66	65-146	7	30	
Ethylbenzene	ug/L	ND	20	20	18.4	16.8	92	84	68-143	9	30	
Hexachloro-1,3-butadiene	ug/L	ND	20	20	20.9	19.5	105	98	62-151	7	30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507313

Date: 11/25/2020 11:04 AM

MATRIX SPIKE & MATRIX SP	INC DOI LI	CATE: 3078	MS	MSD	3078311							
	g	2506794007	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qua
m&p-Xylene	ug/L	ND	40	40	38.1	36.1	95	90	53-157	6	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	17.2	16.1	86	81	59-156	6	30	
Methylene Chloride	ug/L	ND	20	20	12.8	11.8	64	59	64-148	7	30	M1
Naphthalene	ug/L	ND	20	20	18.3	16.2	92	81	57-150	12	30	
o-Xylene	ug/L	ND	20	20	18.4	16.8	92	84	68-143	9	30	
o-Isopropyltoluene	ug/L	ND	20	20	19.0	17.4	95	87	70-141	9	30	
Styrene	ug/L	ND	20	20	18.9	16.7	95	83	70-136	13	30	
Tetrachloroethene	ug/L	ND	20	20	18.6	16.8	93	84	70-139	10	30	
Toluene	ug/L	ND	20	20	17.4	16.2	87	81	47-157	7	30	
trans-1,2-Dichloroethene	ug/L	ND	20	20	17.3	16.3	86	82	70-149	5	30	
trans-1,3-Dichloropropene	ug/L	ND	20	20	18.9	17.4	94	87	70-138	8	30	
Trichloroethene	ug/L	ND	20	20	18.9	17.9	95	89	70-149	6	30	
Trichlorofluoromethane	ug/L	ND	20	20	19.9	19.5	100	97	61-154	2	30	
√inyl acetate	ug/L	ND	40	40	36.2	32.9	91	82	48-156	10	30	
Vinyl chloride	ug/L	ND	20	20	14.6	13.6	73	68	55-172	7	30	v3
Kylene (Total)	ug/L	ND	60	60	56.5	52.9	94	88	66-145	7	30	
1,2-Dichloroethane-d4 (S)	%						119	122	70-130			
I-Bromofluorobenzene (S)	%						105	105	70-130			
Toluene-d8 (S)	%						99	97	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507313

Date: 11/25/2020 11:04 AM

QC Batch: 582009 Analysis Method: EPA 8260D

QC Batch Method: EPA 8260D Analysis Description: 8260D MSV Low Level Landfill

Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92507313001

METHOD BLANK: 3078316 Matrix: Water

Associated Lab Samples: 92507313001

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	11/20/20 23:31	
1,1,1-Trichloroethane	ug/L	ND	1.0	11/20/20 23:31	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	11/20/20 23:31	
1,1,2-Trichloroethane	ug/L	ND	1.0	11/20/20 23:31	
1,1-Dichloroethane	ug/L	ND	1.0	11/20/20 23:31	
1,1-Dichloroethene	ug/L	ND	1.0	11/20/20 23:31	
1,1-Dichloropropene	ug/L	ND	1.0	11/20/20 23:31	
1,2,3-Trichlorobenzene	ug/L	ND	1.0	11/20/20 23:31	
1,2,3-Trichloropropane	ug/L	ND	1.0	11/20/20 23:31	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	11/20/20 23:31	
1,2-Dibromo-3-chloropropane	ug/L	ND	5.0	11/20/20 23:31	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	11/20/20 23:31	
1,2-Dichlorobenzene	ug/L	ND	1.0	11/20/20 23:31	
1,2-Dichloroethane	ug/L	ND	1.0	11/20/20 23:31	
1,2-Dichloropropane	ug/L	ND	1.0	11/20/20 23:31	
1,3-Dichlorobenzene	ug/L	ND	1.0	11/20/20 23:31	
1,3-Dichloropropane	ug/L	ND	1.0	11/20/20 23:31	
1,4-Dichlorobenzene	ug/L	ND	1.0	11/20/20 23:31	
2,2-Dichloropropane	ug/L	ND	1.0	11/20/20 23:31	
2-Butanone (MEK)	ug/L	ND	5.0	11/20/20 23:31	
2-Chlorotoluene	ug/L	ND	1.0	11/20/20 23:31	
2-Hexanone	ug/L	ND	5.0	11/20/20 23:31	
4-Chlorotoluene	ug/L	ND	1.0	11/20/20 23:31	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	5.0	11/20/20 23:31	
Acetone	ug/L	ND	25.0	11/20/20 23:31	
Benzene	ug/L	ND	1.0	11/20/20 23:31	
Bromobenzene	ug/L	ND	1.0	11/20/20 23:31	
Bromochloromethane	ug/L	ND	1.0	11/20/20 23:31	
Bromodichloromethane	ug/L	ND	1.0	11/20/20 23:31	
Bromoform	ug/L	ND	1.0	11/20/20 23:31	v1
Bromomethane	ug/L	ND	2.0	11/20/20 23:31	
Carbon tetrachloride	ug/L	ND	1.0	11/20/20 23:31	
Chlorobenzene	ug/L	ND	1.0	11/20/20 23:31	
Chloroethane	ug/L	ND	1.0	11/20/20 23:31	
Chloroform	ug/L	ND	5.0	11/20/20 23:31	
Chloromethane	ug/L	ND	1.0	11/20/20 23:31	v2
cis-1,2-Dichloroethene	ug/L	ND	1.0	11/20/20 23:31	
cis-1,3-Dichloropropene	ug/L	ND	1.0	11/20/20 23:31	
Dibromochloromethane	ug/L	ND	1.0	11/20/20 23:31	
Dibromomethane	ug/L	ND	1.0	11/20/20 23:31	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507313

Date: 11/25/2020 11:04 AM

METHOD BLANK: 3078316 Matrix: Water

Associated Lab Samples: 92507313001

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/L	ND	1.0	11/20/20 23:31	
Diisopropyl ether	ug/L	ND	1.0	11/20/20 23:31	
Ethylbenzene	ug/L	ND	1.0	11/20/20 23:31	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	11/20/20 23:31	
m&p-Xylene	ug/L	ND	2.0	11/20/20 23:31	
Methyl-tert-butyl ether	ug/L	ND	1.0	11/20/20 23:31	
Methylene Chloride	ug/L	ND	5.0	11/20/20 23:31	
Naphthalene	ug/L	ND	1.0	11/20/20 23:31	
o-Xylene	ug/L	ND	1.0	11/20/20 23:31	
p-Isopropyltoluene	ug/L	ND	1.0	11/20/20 23:31	
Styrene	ug/L	ND	1.0	11/20/20 23:31	
Tetrachloroethene	ug/L	ND	1.0	11/20/20 23:31	
Toluene	ug/L	ND	1.0	11/20/20 23:31	
trans-1,2-Dichloroethene	ug/L	ND	1.0	11/20/20 23:31	
trans-1,3-Dichloropropene	ug/L	ND	1.0	11/20/20 23:31	
Trichloroethene	ug/L	ND	1.0	11/20/20 23:31	
Trichlorofluoromethane	ug/L	ND	1.0	11/20/20 23:31	
Vinyl acetate	ug/L	ND	2.0	11/20/20 23:31	
Vinyl chloride	ug/L	ND	1.0	11/20/20 23:31	v2
Xylene (Total)	ug/L	ND	1.0	11/20/20 23:31	
1,2-Dichloroethane-d4 (S)	%	115	70-130	11/20/20 23:31	
4-Bromofluorobenzene (S)	%	101	70-130	11/20/20 23:31	
Toluene-d8 (S)	%	100	70-130	11/20/20 23:31	

LABORATORY CONTROL SAMPLE:	3078317					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	50	56.4	113	70-130	
1,1,1-Trichloroethane	ug/L	50	52.8	106	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	47.2	94	70-130	
1,1,2-Trichloroethane	ug/L	50	51.3	103	70-130	
1,1-Dichloroethane	ug/L	50	47.1	94	70-130	
1,1-Dichloroethene	ug/L	50	51.0	102	70-132	
1,1-Dichloropropene	ug/L	50	47.8	96	70-131	
1,2,3-Trichlorobenzene	ug/L	50	50.4	101	70-134	
1,2,3-Trichloropropane	ug/L	50	53.0	106	70-130	
1,2,4-Trichlorobenzene	ug/L	50	51.3	103	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	57.0	114	70-132	
1,2-Dibromoethane (EDB)	ug/L	50	52.5	105	70-130	
1,2-Dichlorobenzene	ug/L	50	51.4	103	70-130	
1,2-Dichloroethane	ug/L	50	52.4	105	70-130	
1,2-Dichloropropane	ug/L	50	47.4	95	70-130	
1,3-Dichlorobenzene	ug/L	50	50.0	100	70-130	
1,3-Dichloropropane	ug/L	50	50.3	101	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507313

Date: 11/25/2020 11:04 AM

LABORATORY CONTROL SAMPLE	: 3078317	Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,4-Dichlorobenzene	ug/L		49.3	99	70-130	
2,2-Dichloropropane	ug/L	50	52.6	105	70-130	
P-Butanone (MEK)	ug/L	100	95.3	95	70-133	
2-Chlorotoluene	ug/L	50	50.6	101	70-130	
-Hexanone	ug/L	100	99.3	99	70-130	
-Chlorotoluene	ug/L	50	49.1	98	70-130	
-Methyl-2-pentanone (MIBK)	ug/L	100	98.4	98	70-130	
cetone	ug/L	100	105	105	70-144	
enzene	ug/L	50	46.7	93	70-130	
romobenzene	ug/L	50	48.7	97	70-130	
romochloromethane	ug/L	50	48.4	97	70-130	
romodichloromethane	ug/L	50	54.6	109	70-130	
romoform	ug/L	50	59.7	119	70-131 v1	
romomethane	ug/L	50	49.6	99	30-177	
arbon tetrachloride	ug/L	50	56.7	113	70-130	
hlorobenzene	ug/L	50	48.9	98	70-130	
hloroethane	ug/L	50	47.4	95	46-131	
hloroform	ug/L	50	50.8	102	70-130	
hloromethane	ug/L	50	39.9	80	49-130 v3	1
s-1,2-Dichloroethene	ug/L	50	46.5	93	70-130	
s-1,3-Dichloropropene	ug/L	50	55.2	110	70-130	
ibromochloromethane	ug/L	50	57.1	114	70-130	
ibromomethane	ug/L	50	56.8	114	70-130	
ichlorodifluoromethane	ug/L	50	48.7	97	52-134	
iisopropyl ether	ug/L	50	41.6	83	70-131	
thylbenzene	ug/L	50	48.4	97	70-130	
exachloro-1,3-butadiene	ug/L	50	55.5	111	70-131	
n&p-Xylene	ug/L	100	101	101	70-130	
lethyl-tert-butyl ether	ug/L	50	49.9	100	70-130	
lethylene Chloride	ug/L	50 50	41.2	82	68-130	
aphthalene	ug/L	50	55.2	110	70-133	
-Xylene	ug/L	50 50	49.5	99	70-130	
-kylene -Isopropyltoluene	ug/L	50 50	49.6	99	70-130 70-130	
tyrene	ug/L	50 50	51.0	102	70-130 70-130	
etrachloroethene	ug/L	50	48.5	97	70-130 70-130	
oluene	ug/L	50 50	48.0	96	70-130 70-130	
ans-1,2-Dichloroethene	_	50 50	46.6	93	70-130 70-130	
ans-1,2-Dichloropropene	ug/L				70-130 70-130	
richloroethene	ug/L	50 50	56.8 51.1	114 102	70-130 70-130	
richlorofluoromethane	ug/L	50 50	51.1 50.2	102	70-130 61-130	
	ug/L					
inyl acetate	ug/L	100	108	108	70-140	
inyl chloride	ug/L	50 150	39.5	79	59-142 v3	•
ylene (Total)	ug/L	150	151	101	70-130	
,2-Dichloroethane-d4 (S)	%			118	70-130	
-Bromofluorobenzene (S)	%			103	70-130	
oluene-d8 (S)	%			99	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507313

Date: 11/25/2020 11:04 AM

MATRIX SPIKE & MATRIX SI	PIKE DUPI	LICATE: 3078			3078319							
			MS	MSD								
Parameter	Units	92507313001 Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qua
,1,1,2-Tetrachloroethane	ug/L	ND	20	20	20.0	18.7	100	94	70-135	<sub>7</sub>	30	
,1,1-Trichloroethane	ug/L	ND	20	20	22.0	19.8	110	99	70-148	11	30	
,1,2,2-Tetrachloroethane	ug/L	ND	20	20	16.0	15.1	80	75	70-131	6		
I,1,2-Trichloroethane	ug/L	ND	20	20	17.9	16.4	90	82	70-136	9		
I,1-Dichloroethane	ug/L	ND	20	20	18.4	16.6	92	83	70-147	10		
.1-Dichloroethene	ug/L	ND	20	20	21.3	19.1	106	96	70-158	11	30	
I,1-Dichloropropene	ug/L	ND	20	20	19.0	17.1	95	85	70-149	11	30	
1,2,3-Trichlorobenzene	ug/L	ND	20	20	17.9	17.2	90	86	68-140	4		
1,2,3-Trichloropropane	ug/L	ND	20	20	13.5	13.2	67	66	67-137	2		M1
,2,4-Trichlorobenzene	ug/L	ND	20	20	18.1	16.3	91	82	70-139	11	30	
,2-Dibromo-3-	ug/L	ND	20	20	17.8	16.7	89	83	69-136	6		
hloropropane	. 3											
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	19.2	17.2	96	86	70-137	11	30	
,2-Dichlorobenzene	ug/L	ND	20	20	18.1	17.3	91	87	70-133	4	30	
,2-Dichloroethane	ug/L	ND	20	20	21.2	18.9	106	95	67-138	11	30	
,2-Dichloropropane	ug/L	ND	20	20	16.9	16.3	84	81	70-138	3	30	
,3-Dichlorobenzene	ug/L	ND	20	20	19.2	17.9	96	90	70-133	7	30	
,3-Dichloropropane	ug/L	ND	20	20	18.2	17.0	91	85	70-136	7	30	
,4-Dichlorobenzene	ug/L	ND	20	20	17.4	16.7	87	84	70-133	4	30	
2,2-Dichloropropane	ug/L	ND	20	20	22.4	19.8	112	99	52-155	12	30	
2-Butanone (MEK)	ug/L	ND	40	40	32.9	29.5	82	74	61-147	11	30	
2-Chlorotoluene	ug/L	ND	20	20	19.2	17.7	96	88	70-141	8	30	
2-Hexanone	ug/L	ND	40	40	31.7	28.8	79	72	67-139	10	30	
I-Chlorotoluene	ug/L	ND	20	20	18.5	17.4	93	87	70-135	7	30	
I-Methyl-2-pentanone MIBK)	ug/L	ND	40	40	30.8	28.4	77	71	67-136	8	30	
Acetone	ug/L	ND	40	40	34.8	32.2	87	80	55-159	8	30	
Benzene	ug/L	ND	20	20	17.4	15.7	87	79	67-150	10	30	
Bromobenzene	ug/L	ND	20	20	17.9	16.7	89	83	70-134	7	30	
Bromochloromethane	ug/L	ND	20	20	18.7	17.7	93	88	70-146	5	30	
Bromodichloromethane	ug/L	ND	20	20	19.8	18.5	99	93	70-138	7	30	
Bromoform	ug/L	ND	20	20	20.0	18.0	100	90	57-138	10	30	v1
Bromomethane	ug/L	ND	20	20	21.8	21.2	109	106	10-200	3		v3
Carbon tetrachloride	ug/L	ND	20	20	22.9	20.3	115	102	70-147	12	30	v1
Chlorobenzene	ug/L	ND	20	20	19.2	17.2	96	86	70-137	11	30	
Chloroethane	ug/L	ND	20	20	17.4	16.8	87	84	51-166	4	30	
Chloroform	ug/L	ND	20	20	21.1	18.8	103	91	70-144	12		
Chloromethane	ug/L	1.6	20	20	15.1	14.3	67	64	24-161	5		v3
is-1,2-Dichloroethene	ug/L	ND	20	20	17.9	16.2	89	81	67-148	10		
cis-1,3-Dichloropropene	ug/L	ND	20	20	18.5	17.2	92	86	70-142	7	30	
Dibromochloromethane	ug/L	ND	20	20	20.4	18.5	102	92	68-138	10	30	
Dibromomethane	ug/L	ND	20	20	21.1	18.2	106	91	70-134	15	30	
Dichlorodifluoromethane	ug/L	ND	20	20	20.7	18.7	104	93	43-155	10	30	
Diisopropyl ether	ug/L	ND	20	20	14.6	13.0	73	65	65-146	11	30	
Ethylbenzene	ug/L	ND	20	20	19.2	17.8	96	89	68-143	8	30	
Hexachloro-1,3-butadiene	ug/L	ND	20	20	19.8	20.4	99	102	62-151	3	30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507313

Date: 11/25/2020 11:04 AM

MATRIX SPIKE & MATRIX SP	IKE DUPLIC	CATE: 3078	MS	MSD	3078319							
	g	2507313001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qua
m&p-Xylene	ug/L	ND	40	40	39.6	36.6	99	91	53-157	8	30	
Methyl-tert-butyl ether	ug/L	ND	20	20	18.8	17.1	90	82	59-156	9	30	
Methylene Chloride	ug/L	ND	20	20	14.0	12.0	70	60	64-148	16	30	M1
Naphthalene	ug/L	ND	20	20	17.2	16.1	86	81	57-150	7	30	
o-Xylene	ug/L	ND	20	20	19.2	17.8	96	89	68-143	8	30	
p-Isopropyltoluene	ug/L	ND	20	20	18.5	17.7	93	88	70-141	5	30	
Styrene	ug/L	ND	20	20	18.9	17.8	95	89	70-136	6	30	
Tetrachloroethene	ug/L	ND	20	20	19.3	16.4	96	82	70-139	16	30	
Toluene	ug/L	ND	20	20	18.0	17.0	90	85	47-157	6	30	
trans-1,2-Dichloroethene	ug/L	ND	20	20	18.6	17.1	93	86	70-149	8	30	
trans-1,3-Dichloropropene	ug/L	ND	20	20	20.0	18.2	100	91	70-138	9	30	
Trichloroethene	ug/L	ND	20	20	19.5	18.4	98	92	70-149	6	30	
Trichlorofluoromethane	ug/L	ND	20	20	21.5	19.9	107	99	61-154	8	30	
Vinyl acetate	ug/L	ND	40	40	37.3	33.2	93	83	48-156	12	30	
Vinyl chloride	ug/L	ND	20	20	15.2	14.0	76	70	55-172	8	30	v3
Xylene (Total)	ug/L	ND	60	60	58.8	54.4	98	91	66-145	8	30	
1,2-Dichloroethane-d4 (S)	%						122	120	70-130			
4-Bromofluorobenzene (S)	%						108	106	70-130			
Toluene-d8 (S)	%						98	97	70-130			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507313

QC Batch: 581970 Analysis Method: EPA 8082A
QC Batch Method: EPA 3510C Analysis Description: 8082 GCS PCB

Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92507313001

METHOD BLANK: 3077995 Matrix: Water

3077996

%

Associated Lab Samples: 92507313001

LABORATORY CONTROL SAMPLE:

Decachlorobiphenyl (S)

Date: 11/25/2020 11:04 AM

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	ND	0.50	11/23/20 08:22	
PCB-1221 (Aroclor 1221)	ug/L	ND	0.50	11/23/20 08:22	
PCB-1232 (Aroclor 1232)	ug/L	ND	0.50	11/23/20 08:22	
PCB-1242 (Aroclor 1242)	ug/L	ND	0.50	11/23/20 08:22	
PCB-1248 (Aroclor 1248)	ug/L	ND	0.50	11/23/20 08:22	
PCB-1254 (Aroclor 1254)	ug/L	ND	0.50	11/23/20 08:22	
PCB-1260 (Aroclor 1260)	ug/L	ND	0.50	11/23/20 08:22	
Decachlorobiphenyl (S)	%	92	10-181	11/23/20 08:22	

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers PCB-1016 (Aroclor 1016) 5 84 41-137 ug/L 4.2

PCB-1260 (Aroclor 1260) ug/L 5 5.7 114 42-156 Decachlorobiphenyl (S) % 90 10-181

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3077998 3077997 MSD MS 92507313001 Spike MS MSD MS MSD Spike % Rec Max Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits **RPD** RPD Qual PCB-1016 (Aroclor 1016) 5 5 3.5 71 22-145 10 30 ug/L ND 3.2 64 PCB-1260 (Aroclor 1260) 5 ug/L ND 5 5.2 4.7 103 94 10-167 10 30

81

76

10-181

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507313

Date: 11/25/2020 11:04 AM

QC Batch: 582391 Analysis Method: EPA 8270E

QC Batch Method: EPA 3510C Analysis Description: 8270E Water MSSV RVE

Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92507313001

METHOD BLANK: 3079917 Matrix: Water

Associated Lab Samples: 92507313001

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/L	ND	10.0	11/24/20 12:08	
1,2-Dichlorobenzene	ug/L	ND	10.0	11/24/20 12:08	
1,3-Dichlorobenzene	ug/L	ND	10.0	11/24/20 12:08	
1,4-Dichlorobenzene	ug/L	ND	10.0	11/24/20 12:08	
1-Methylnaphthalene	ug/L	ND	10.0	11/24/20 12:08	
2,2'-Oxybis(1-chloropropane)	ug/L	ND	10.0	11/24/20 12:08	
2,4,5-Trichlorophenol	ug/L	ND	10.0	11/24/20 12:08	
2,4,6-Trichlorophenol	ug/L	ND	10.0	11/24/20 12:08	
2,4-Dichlorophenol	ug/L	ND	10.0	11/24/20 12:08	
2,4-Dimethylphenol	ug/L	ND	10.0	11/24/20 12:08	
2,4-Dinitrophenol	ug/L	ND	50.0	11/24/20 12:08	
2,4-Dinitrotoluene	ug/L	ND	10.0	11/24/20 12:08	
2,6-Dinitrotoluene	ug/L	ND	10.0	11/24/20 12:08	
2-Chloronaphthalene	ug/L	ND	10.0	11/24/20 12:08	
2-Chlorophenol	ug/L	ND	10.0	11/24/20 12:08	
2-Methylnaphthalene	ug/L	ND	10.0	11/24/20 12:08	
2-Methylphenol(o-Cresol)	ug/L	ND	10.0	11/24/20 12:08	
2-Nitroaniline	ug/L	ND	20.0	11/24/20 12:08	
2-Nitrophenol	ug/L	ND	10.0	11/24/20 12:08	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	10.0	11/24/20 12:08	
3,3'-Dichlorobenzidine	ug/L	ND	20.0	11/24/20 12:08	
3-Nitroaniline	ug/L	ND	20.0	11/24/20 12:08	
4,6-Dinitro-2-methylphenol	ug/L	ND	20.0	11/24/20 12:08	
4-Bromophenylphenyl ether	ug/L	ND	10.0	11/24/20 12:08	
4-Chloro-3-methylphenol	ug/L	ND	10.0	11/24/20 12:08	
4-Chloroaniline	ug/L	ND	20.0	11/24/20 12:08	
4-Chlorophenylphenyl ether	ug/L	ND	10.0	11/24/20 12:08	
4-Nitroaniline	ug/L	ND	20.0	11/24/20 12:08	
4-Nitrophenol	ug/L	ND	50.0	11/24/20 12:08	
Acenaphthene	ug/L	ND	10.0	11/24/20 12:08	
Acenaphthylene	ug/L	ND	10.0	11/24/20 12:08	
Aniline	ug/L	ND	10.0	11/24/20 12:08	
Anthracene	ug/L	ND	10.0	11/24/20 12:08	
Benzo(a)anthracene	ug/L	ND	10.0	11/24/20 12:08	
Benzo(a)pyrene	ug/L	ND	10.0	11/24/20 12:08	
Benzo(b)fluoranthene	ug/L	ND	10.0	11/24/20 12:08	
Benzo(g,h,i)perylene	ug/L	ND	10.0	11/24/20 12:08	
Benzo(k)fluoranthene	ug/L	ND	10.0	11/24/20 12:08	
Benzoic Acid	ug/L	ND	50.0	11/24/20 12:08	
Benzyl alcohol	ug/L	ND	20.0	11/24/20 12:08	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507313

Date: 11/25/2020 11:04 AM

METHOD BLANK: 3079917 Matrix: Water

Associated Lab Samples: 92507313001

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
bis(2-Chloroethoxy)methane	ug/L	ND	10.0	11/24/20 12:08	
bis(2-Chloroethyl) ether	ug/L	ND	10.0	11/24/20 12:08	
bis(2-Ethylhexyl)phthalate	ug/L	ND	6.0	11/24/20 12:08	
Butylbenzylphthalate	ug/L	ND	10.0	11/24/20 12:08	
Chrysene	ug/L	ND	10.0	11/24/20 12:08	
Di-n-butylphthalate	ug/L	ND	10.0	11/24/20 12:08	
Di-n-octylphthalate	ug/L	ND	10.0	11/24/20 12:08	
Dibenz(a,h)anthracene	ug/L	ND	10.0	11/24/20 12:08	
Dibenzofuran	ug/L	ND	10.0	11/24/20 12:08	
Diethylphthalate	ug/L	ND	10.0	11/24/20 12:08	
Dimethylphthalate	ug/L	ND	10.0	11/24/20 12:08	
Fluoranthene	ug/L	ND	10.0	11/24/20 12:08	
Fluorene	ug/L	ND	10.0	11/24/20 12:08	
Hexachloro-1,3-butadiene	ug/L	ND	10.0	11/24/20 12:08	
Hexachlorobenzene	ug/L	ND	10.0	11/24/20 12:08	
Hexachlorocyclopentadiene	ug/L	ND	10.0	11/24/20 12:08	
Hexachloroethane	ug/L	ND	10.0	11/24/20 12:08	
Indeno(1,2,3-cd)pyrene	ug/L	ND	10.0	11/24/20 12:08	
Isophorone	ug/L	ND	10.0	11/24/20 12:08	
N-Nitroso-di-n-propylamine	ug/L	ND	10.0	11/24/20 12:08	
N-Nitrosodimethylamine	ug/L	ND	10.0	11/24/20 12:08	
N-Nitrosodiphenylamine	ug/L	ND	10.0	11/24/20 12:08	
Naphthalene	ug/L	ND	10.0	11/24/20 12:08	
Nitrobenzene	ug/L	ND	10.0	11/24/20 12:08	
Pentachlorophenol	ug/L	ND	20.0	11/24/20 12:08	
Phenanthrene	ug/L	ND	10.0	11/24/20 12:08	
Phenol	ug/L	ND	10.0	11/24/20 12:08	
Pyrene	ug/L	ND	10.0	11/24/20 12:08	
2,4,6-Tribromophenol (S)	%	16	10-144	11/24/20 12:08	
2-Fluorobiphenyl (S)	%	96	10-130	11/24/20 12:08	
2-Fluorophenol (S)	%	9	10-130	11/24/20 12:08	S0
Nitrobenzene-d5 (S)	%	118	10-144	11/24/20 12:08	
Phenol-d6 (S)	%	35	10-130	11/24/20 12:08	
Terphenyl-d14 (S)	%	149	34-163	11/24/20 12:08	

LABORATORY CONTROL SAMPLE:	3079918					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	50	33.5	67	18-130	
1,2-Dichlorobenzene	ug/L	50	34.1	68	20-130	
1,3-Dichlorobenzene	ug/L	50	31.7	63	18-130	
1,4-Dichlorobenzene	ug/L	50	33.9	68	18-130	
1-Methylnaphthalene	ug/L	50	38.7	77	29-130	
2,2'-Oxybis(1-chloropropane)	ug/L	50	42.0	84	28-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507313

Date: 11/25/2020 11:04 AM

LABORATORY CONTROL SAMPLE:	3079918	Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
2,4,5-Trichlorophenol	ug/L		53.0	106	35-130	
2,4,6-Trichlorophenol	ug/L	50	50.9	102	31-130	
2,4-Dichlorophenol	ug/L	50	50.9	102	35-130	
2,4-Dimethylphenol	ug/L	50	51.5	103	34-130	
2,4-Dinitrophenol	ug/L	250	288	115	10-153	
2,4-Dinitrotoluene	ug/L	50	60.9	122	37-136	
2,6-Dinitrotoluene	ug/L	50	54.6	109	33-136	
2-Chloronaphthalene	ug/L	50	39.6	79	26-130	
2-Chlorophenol	ug/L	50	47.3	95	37-130	
2-Methylnaphthalene	ug/L	50	38.8	78	29-130	
2-Methylphenol(o-Cresol)	ug/L	50	46.2	92	35-130	
2-Nitroaniline	ug/L	100	107	107	37-130	
2-Nitrophenol	ug/L	50	52.2	104	32-130	
3&4-Methylphenol(m&p Cresol)	ug/L	50	44.7	89	34-130	
3,3'-Dichlorobenzidine	ug/L	100	131	131	34-136	
3-Nitroaniline	ug/L	100	109	109	37-138	
1,6-Dinitro-2-methylphenol	ug/L	100	125	125	21-157	
I-Bromophenylphenyl ether	ug/L	50	47.2	94	38-130	
-Chloro-3-methylphenol	ug/L	100	101	101	37-130	
I-Chloroaniline	ug/L	100	96.2	96	38-130	
I-Chlorophenylphenyl ether	ug/L	50	42.8	86	33-130	
l-Nitroaniline	ug/L	100	122	122	42-137	
-Nitrophenol	ug/L	250	194	78	10-130	
Acenaphthene	ug/L	50	40.5	81	33-130	
Acenaphthylene	ug/L	50	43.7	87	35-130	
Aniline	ug/L	50	39.7	79	22-130	
Anthracene	ug/L	50	50.1	100	48-130	
Benzo(a)anthracene	ug/L	50	60.9	122	48-137	
Benzo(a)pyrene	ug/L	50	64.0	128	49-138	
Benzo(b)fluoranthene	ug/L	50	64.3	129	52-138	
Benzo(g,h,i)perylene	ug/L	50	62.4	125	48-140	
Benzo(k)fluoranthene	ug/L	50	65.3	131	48-139	
Benzoic Acid	ug/L	250	120	48	10-130	
Benzyl alcohol	ug/L	100	97.7	98	35-130	
pis(2-Chloroethoxy)methane	ug/L	50	48.9	98	34-130	
pis(2-Chloroethyl) ether	ug/L	50	53.5	107	36-130	
pis(2-Ethylhexyl)phthalate	ug/L	50	70.3	141	32-165	
Butylbenzylphthalate	ug/L	50	66.6	133	34-161	
Chrysene	ug/L	50	60.9	122	47-131	
Di-n-butylphthalate	ug/L	50	68.5	137	39-144	
Di-n-octylphthalate	ug/L	50	66.8	134	30-170	
Dibenz(a,h)anthracene	ug/L	50	64.7	129	49-138	
Dibenzofuran	ug/L	50	44.0	88	33-130	
Diethylphthalate	ug/L	50	56.8	114	38-131	
Dimethylphthalate	ug/L	50	52.1	104	37-130	
Fluoranthene	ug/L	50	62.7	125	46-137	
Fluorene	ug/L	50	44.0	88	37-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507313

Date: 11/25/2020 11:04 AM

ABORATORY CONTROL SAMPLE:	3079918					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Hexachloro-1,3-butadiene	ug/L	50	29.9	60	11-130	
Hexachlorobenzene	ug/L	50	48.6	97	38-130	
lexachlorocyclopentadiene	ug/L	50	29.1	58	10-130	
lexachloroethane	ug/L	50	29.4	59	14-130	
ndeno(1,2,3-cd)pyrene	ug/L	50	65.0	130	41-130	
sophorone	ug/L	50	49.3	99	33-130	
l-Nitroso-di-n-propylamine	ug/L	50	50.4	101	36-130	
-Nitrosodimethylamine	ug/L	50	41.1	82	34-130	
-Nitrosodiphenylamine	ug/L	50	54.3	109	37-130	
aphthalene	ug/L	50	39.1	78	30-130	
trobenzene	ug/L	50	52.4	105	36-130	
entachlorophenol	ug/L	100	124	124	23-149	
nenanthrene	ug/L	50	52.9	106	44-130	
nenol	ug/L	50	29.9	60	18-130	
yrene	ug/L	50	59.0	118	47-134	
4,6-Tribromophenol (S)	%			130	10-144	
-Fluorobiphenyl (S)	%			85	10-130	
Fluorophenol (S)	%			75	10-130	
trobenzene-d5 (S)	%			106	10-144	
henol-d6 (S)	%			62	10-130	
erphenyl-d14 (S)	%			134	34-163	

MATRIX SPIKE & MATRIX SI	PIKE DUPLIC	ATE: 3079	919		3079920	)						
			MS	MSD								
	9.	2507313001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1,2,4-Trichlorobenzene	ug/L	ND	100	100	55.8	28.2	56	28	10-130	66	30	R1
1,2-Dichlorobenzene	ug/L	ND	100	100	56.1	25.3	56	25	10-130	76	30	R1
1,3-Dichlorobenzene	ug/L	ND	100	100	52.8	21.9	53	22	10-130	83	30	R1
1,4-Dichlorobenzene	ug/L	ND	100	100	55.5	23.9	56	24	10-130	79	30	R1
1-Methylnaphthalene	ug/L	ND	100	100	64.0	37.4	64	37	10-130	52	30	R1
2,2'-Oxybis(1- chloropropane)	ug/L	ND	100	100	70.2	48.4	70	48	12-142	37	30	R1
2,4,5-Trichlorophenol	ug/L	ND	100	100	26.4	62.5	26	63	10-143	81	30	R1
2,4,6-Trichlorophenol	ug/L	ND	100	100	12.3J	56.0	12	56	10-147		30	
2,4-Dichlorophenol	ug/L	ND	100	100	42.7	59.8	43	60	10-138	33	30	R1
2,4-Dimethylphenol	ug/L	ND	100	100	83.5	65.8	83	66	25-130	24	30	
2,4-Dinitrophenol	ug/L	ND	500	500	ND	ND	0	10	10-165		30	M1
2,4-Dinitrotoluene	ug/L	ND	100	100	76.7	83.3	77	83	29-148	8	30	
2,6-Dinitrotoluene	ug/L	ND	100	100	80.3	67.3	80	67	26-146	18	30	
2-Chloronaphthalene	ug/L	ND	100	100	64.6	39.3	65	39	11-130	49	30	R1
2-Chlorophenol	ug/L	ND	100	100	45.6	58.2	46	58	10-133	24	30	
2-Methylnaphthalene	ug/L	ND	100	100	62.8	37.6	63	38	13-130	50	30	R1
2-Methylphenol(o-Cresol)	ug/L	ND	100	100	73.9	57.7	74	58	20-130	25	30	
2-Nitroaniline	ug/L	ND	200	200	157	128	78	64	24-136	20	30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507313

Date: 11/25/2020 11:04 AM

MATRIX SPIKE & MATRIX SP	IKE DUPI	LICATE: 3079			3079920							
			MS	MSD								
Parameter	Units	92507313001 Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qua
2-Nitrophenol	ug/L	ND	100	100	45.3	63.7	45	64	10-153	34		 R1
3&4-Methylphenol(m&p	ug/L	ND	100	100	69.4	53.7	69	54	16-130	25		111
Cresol)	ug/L	ND	100	100	05.4	55.7	03	54	10-130	20	30	
3,3'-Dichlorobenzidine	ug/L	ND	200	200	159	206	80	103	10-153	26	30	
3-Nitroaniline	ug/L	ND	200	200	157	138	78	69	22-151	13	30	
4,6-Dinitro-2-methylphenol	ug/L	ND	200	200	13.7J	110	7	55	10-180		30	M1
1-Bromophenylphenyl ether	ug/L	ND	100	100	71.7	57.3	72	57	25-130	22	30	
4-Chloro-3-methylphenol	ug/L	ND	200	200	149	121	75	61	25-133	21	30	
4-Chloroaniline	ug/L	ND	200	200	159	123	79	62	14-132	25	30	
1-Chlorophenylphenyl ether	ug/L	ND	100	100	67.2	51.0	67	51	19-130	27	30	
4-Nitroaniline	ug/L	ND	200	200	156	187	78	93	29-150	18	30	
1-Nitrophenol	ug/L	ND	500	500	ND	128	0	26	10-130		30	M1
Acenaphthene	ug/L	ND	100	100	65.2	43.6	65	44	16-130	40	30	R1
Acenaphthylene	ug/L	ND	100	100	70.9	47.9	71	48	15-137	39	30	R1
Aniline	ug/L	ND	100	100	67.6	50.3	68	50	10-130	29	30	
Anthracene	ug/L	ND	100	100	70.6	64.7	71	65	37-136	9	30	
Benzo(a)anthracene	ug/L	ND	100	100	80.8	101	81	101	40-145	23	30	
Benzo(a)pyrene	ug/L	ND	100	100	81.0	104	81	104	41-146	24	30	
Benzo(b)fluoranthene	ug/L	ND	100	100	79.5	105	80	105	39-151	28	30	
Benzo(g,h,i)perylene	ug/L	ND	100	100	82.0	104	82	104	40-147	24	30	
Benzo(k)fluoranthene	ug/L	ND	100	100	85.2	107	85	107	40-146	23	30	
Benzoic Acid	ug/L	ND	500	500	ND	ND	0	0	10-130		30	M1
Benzyl alcohol	ug/L	ND	200	200	162	119	81	60	25-130	30	30	
ois(2-	ug/L	ND	100	100	79.8	60.2	80	60	23-130	28	30	
Chloroethoxy)methane	,											
ois(2-Chloroethyl) ether	ug/L	ND	100	100	94.9	65.2	95	65	25-130	37		R1
ois(2-Ethylhexyl)phthalate	ug/L	ND	100	100	78.9	107	79	107	28-166	30		
Butylbenzylphthalate	ug/L	ND	100	100	77.9	105	78	105	33-165	29	30	
Chrysene	ug/L	ND	100	100	81.9	101	82	101	38-141	21	30	
Di-n-butylphthalate	ug/L	ND	100	100	78.6	101	79	101	32-153	25	30	
Di-n-octylphthalate	ug/L	ND	100	100	74.6	101	75	101	30-175	30		
Dibenz(a,h)anthracene	ug/L	ND	100	100	82.4	107	82	107	39-148	26		
Dibenzofuran	ug/L	ND	100	100	70.0	50.8	70	51	20-130	32		R1
Diethylphthalate	ug/L	ND	100	100	76.5	71.1	76	71	28-142	7		
Dimethylphthalate	ug/L	ND	100	100	74.2	62.1	74	62	26-136	18		
Fluoranthene 	ug/L	ND	100	100	82.7	100	83	100	39-143	19	30	
Fluorene	ug/L	ND	100	100	69.3	52.4	69	52	24-132	28		
Hexachloro-1,3-butadiene	ug/L	ND	100	100	51.7	18.8J	52	19	10-130	4.0	30	
Hexachlorobenzene	ug/L	ND	100	100	74.2	64.9	74	65	29-130	13		
Hexachlorocyclopentadiene	ug/L	ND	100	100	47.4	19.8J	47	20	10-130		30	
Hexachloroethane	ug/L	ND	100	100	53.9	17.3J	54	17	10-130		30	
ndeno(1,2,3-cd)pyrene	ug/L	ND	100	100	83.0	107	83	107	39-148	26		
sophorone	ug/L	ND	100	100	79.7	60.0	80	60	23-130	28		
N-Nitroso-di-n-propylamine	ug/L	ND	100	100	82.3	59.1	82	59	25-130	33		R1
N-Nitrosodimethylamine	ug/L	ND	100	100	60.9	45.3	61	45	22-130	29		
N-Nitrosodiphenylamine	ug/L	ND	100	100	77.6	65.4	78	65	26-134	17	30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507313

Date: 11/25/2020 11:04 AM

MATRIX SPIKE & MATRIX SI	PIKE DUPLI	CATE: 3079	919 MS	MSD	3079920							
	9	2507313001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qua
Naphthalene	ug/L	ND	100	100	65.1	40.7	65	41	14-130	46	30	R1
Nitrobenzene	ug/L	ND	100	100	86.6	64.0	87	64	25-130	30	30	
Pentachlorophenol	ug/L	ND	200	200	18.8J	145	9	72	10-175		30	M1
Phenanthrene	ug/L	ND	100	100	77.2	69.7	77	70	36-133	10	30	
Phenol	ug/L	ND	100	100	29.9	36.9	30	37	10-130	21	30	
Pyrene	ug/L	ND	100	100	80.2	95.7	80	96	40-143	18	30	
2,4,6-Tribromophenol (S)	%						29	73	10-144			
2-Fluorobiphenyl (S)	%						67	44	10-130			
2-Fluorophenol (S)	%						17	44	10-130			
Nitrobenzene-d5 (S)	%						87	66	10-144			
Phenol-d6 (S)	%						37	39	10-130			
Terphenyl-d14 (S)	%						84	105	34-163			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



#### **QUALIFIERS**

Project: AWI Facility 1690019302

Pace Project No.: 92507313

#### **DEFINITIONS**

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

**DUP - Sample Duplicate** 

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

#### **ANALYTE QUALIFIERS**

Date: 11/25/2020 11:04 AM

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.
S0	Surrogate recovery outside laboratory control limits.
v1	The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.
v2	The continuing calibration verification was below the method acceptance limit. The analyte was not detected in the associated samples and the sensitivity of the instrument was verified with a reporting limit check standard.
v3	The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have low bias.



## **QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: AWI Facility 1690019302

Pace Project No.: 92507313

Date: 11/25/2020 11:04 AM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytica Batch
92507313001	MW-06R 20201119 MS/MSD	EPA 3510C	581970	EPA 8082A	582220
92507313001	MW-06R 20201119 MS/MSD	EPA 3010A	582337	EPA 6010D	582406
92507313001	MW-06R 20201119 MS/MSD	EPA 7470A	582393	EPA 7470A	582560
92507313001	MW-06R 20201119 MS/MSD	EPA 3510C	582391	EPA 8270E	582646
92507313001	MW-06R 20201119 MS/MSD	EPA 8260D	582009		
92507313002	TB-01 20201119	EPA 8260D	582006		



all: ahottenstein@ramboll.com

anta, GA 30339

CHAIN-OF-CUSTODY / Analytical Request D WO#: 92507313
The Chain-of-Custody is a LEGAL DOCLIMENT. All referred files.

92507313	
----------	--

1-	WWW PACELARS CRM	ine	Chain-or-Custody is a LEGAL DOCUMENT. All relev		
ation A		Section B	Section C	#111	1 101 11 12 12 12 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15
quired Cile	nt Information:	Required Project Information:	invoice information:	92507	313
mpany:	Ramboli Environ US Corporation	Report To: Aaron Hottenstein	Attention:	32307	
iress:	1600 Parkwood Circle	Copy To:	Company Name		
anta, GA 30	339		Address:		Regulatory Agency

Pace Quote:

Purchase Order #:

678-388-1656 Fax sted Due Date: Standard	Project Name:	AWI facility- proj# 1690	019302	Pace Project Pace Profile		nty@pacelabs.com,	Sta	te / Location GA
TENERAL	Trojoura.	1001-130	700	T doc ( tomo	12000	Requested Analysis Filte	red (Y/N)	100
MATRIXO Drinking W Waterd Waste Wat Producto Solw/Solido One Character per box. (A-Z, 0-9 / , - Otherd	PD SLO 98 OLC SS	COLL COLL START  START	COTECTION ON THE TENT OF THE T	ONTAINERS served	Preservatives	SVOC PCB Netals	Thirden (VA)	(Art ) Ballonia
) Tessue Sample ids must be unique	MATRX 81	P. D.	S. S.	# OF CON Unpreser H2SC4	HINOS HICI Na2S203 Methanol	Abelyna 8270 Full Lis 8270 SVOC 8082 PCB RCRA Metais WOC 2288 5 SVOC 92704		
MW-0/0 20201110			DATE TIME 3	84	13		<del>                                     </del>	
MW-06R 20201119 MW-06R MS/MSD ZOZ			11-14-20 10:35	84	13		1111	MS/MSD
	01117 WT		1-14-20 10:35	2 7	2		<del>                                     </del>	Trip Blank
TB-01 20201119	- W1	<del>      -   -   -   -   -   -   -   -   -</del>	1 [-0  0.33	<del> ^</del>  +	<del>   ^    -   </del>	▎ <del>▎</del>	<del>         </del>	The blank
				++-			1111	
				e :		┫ <del>╒┋</del>		
			AON ,	1-19				
		1 1	-	1 19	42020			·
		+ + -		<del>                                     </del>				
		1 1		<del>                                     </del>				
ADDITIONAL COMMENTS	the state of the s	UISHED BY / AFFILIATION	M DATE	TIME	ACCEPTED B	Y/AFFILIATION DATE	THE	SAMPLE CONDITIONS
vel IV Data Package	Um	Dun	11-19-20	16:4	2. Weller	HATTACE VIME	0/645	
,	0			/		//		
en The second								
	4	SAMPLE	IR NAME AND SIGNAT	TURE	22 2			
		PRI	NT Name of SAMPLER	<u>н</u> Д.,	ron D. Hot	DATE Signed: 19-2	TEMP IO	Received on loc   (Y/N) Custody Sealed   Cooler   (Y/N) Samples

10	Sample Condition Upon		Page 1 of 2		
Pace Analytical	Document N F-CAR-CS-033-	lo.:	Issuing Authority: Pace Carolinas Quality Office		
poratory receiving samples: sheville	d 🔲 Huntersville 🗌	Raleigh	Aechanicsville Atlanta Kernersville		
Sample Condition Upon Receipt  Wrier: Commercial  Client Name:  Fed Ex  Pace	UPS USPS	Project #	WO#: 92507313  PM: NJK Due Date: 11/30/20  CLIENT: GA-Rambell		
tody Seal Present?	Seals Intact? Yes	□No	Date/Initials Person Examining Contents:		
	Type of Ice:		Biological Tissue Frozen?  Yes No N/A  None  The property of t		
oler Temp Corrected (*C):  DA Regulated Soil (  N/A, water sample)  I samples originate in a quarantine zone within  Yes No	the United States CA, NY, or SC	C (check maps)? C	oid samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No  Comments/Discrepancy:		
Chain of Custody Present?	DNES □No	□N/A 1.			
Samples Arrived within Hold Time?	DNes □No	□N/A 2.			
Short Hold Time Analysis (<72 hr.)?		□N/A 3.			
Rush Turn Around Time Requested?	□Ves □No	□N/A 4.	-		
Sufficient Volume?	EHES No	□N/A 5.			
Correct Containers Used? -Pace Containers Used?	☐ es ☐ No ☐ No ☐ No	□n/a 6, □n/a			
Containers Intact?	☐ INO	□N/A 7.			
Dissolved analysis: Samples Field Filtered?	□Yes □No	<b>₽</b> N/A 8.			
Sample Labels Match COC?	Dres □No	□N/A 9.			
-Includes Date/Time/ID/Analysis Matri		- Curi 10			
Headspace in VOA Vials (>5-6mm)?  Trip Blank Present?	Yes Mo	□N/A 10. □N/A 11.	1 - 7 - 5 - 7 - 7 - 7 - 7 - 7 - 7 - 7 - 7		
Trip Blank Custody Seals Present?	IIVes □No	□N/A L	0+ # 101920 -30BB		
COMMENTS/SAMPLE DISCREPANCY			Field Data Required? Yes		
		Lo	t <b>D</b> of split containers:		
CLIENT NOTIFICATION/RESOLUTION					
Person contacted:		Date/Time:			

Project Manager SCURF Review:

**Project Manager SRF Review:** 

Date:

Date: \_

Page 33 of 33





November 30, 2020

Keith Cole Ramboll Environ US Corporation 1600 Parkwood Circle Suite 310 Atlanta, GA 30339

RE: Project: AWI Facility 1690019302 Pace Project No.: 92507319

#### Dear Keith Cole:

Enclosed are the analytical results for sample(s) received by the laboratory on November 19, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services Charlotte
- Pace Analytical Services Peachtree Corners, GA

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Nikita Kuruganty nikita.kuruganty@pacelabs.com (770)734-4200 Project Manager

**Enclosures** 

cc: Aaron D. Hottenstein, PG, Ramboll Environ US

Corporation

Robert Patchett, Ramboll Environ





#### **CERTIFICATIONS**

Project: AWI Facility 1690019302

Pace Project No.: 92507319

**Pace Analytical Services Charlotte** 

9800 Kincey Ave. Ste 100, Huntersville, NC 28078 Louisiana/NELAP Certification # LA170028

North Carolina Drinking Water Certification #: 37706 North Carolina Field Services Certification #: 5342 North Carolina Wastewater Certification #: 12

**Pace Analytical Services Peachtree Corners** 

110 Technology Pkwy, Peachtree Corners, GA 30092

Florida DOH Certification #: E87315 Georgia DW Inorganics Certification #: 812 Georgia DW Microbiology Certification #: 812 South Carolina Certification #: 99006001 Florida/NELAP Certification #: E87627 Kentucky UST Certification #: 84 Virginia/VELAP Certification #: 460221

North Carolina Certification #: 381 South Carolina Certification #: 98011001 Virginia Certification #: 460204





## **SAMPLE SUMMARY**

Project: AWI Facility 1690019302

Pace Project No.: 92507319

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92507319001	WC-01 20201119	Solid	11/19/20 12:00	11/19/20 16:45



## **SAMPLE ANALYTE COUNT**

Project: AWI Facility 1690019302

Pace Project No.: 92507319

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92507319001	WC-01 20201119	EPA 8082A	BAJ	8	PASI-C
		EPA 6010D	DRB, KH	7	PASI-GA
		EPA 7471B	VB	1	PASI-GA
		EPA 8270E	BPJ	75	PASI-C
		EPA 8260D	CL	70	PASI-C
		ASTM D2974-87	KDF	1	PASI-C

PASI-C = Pace Analytical Services - Charlotte
PASI-GA = Pace Analytical Services - Peachtree Corners, GA



Project: AWI Facility 1690019302

Pace Project No.: 92507319

Date: 11/30/2020 05:51 PM

Sample: WC-01 20201119	Lab ID: 925	07319001	Collected: 11/	9/20 12:0	00 Received:	11/19/20 16:45	Matrix: Solid	
Results reported on a "dry weigl	ht" basis and are adj	usted for p	ercent moisture	, sample	size and any di	lutions.		
Parameters	Results	Units	Report Lim	it DF	Prepared	Analyzed	CAS No.	Qua
3082 GCS PCB	Analytical Meth	nod: EPA 80	82A Preparation	Method:	EPA 3546			
	Pace Analytica							
PCB-1016 (Aroclor 1016)	ND	ug/kg	30	.1 1	11/24/20 15:4	12 11/25/20 09:0	8 12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/kg ug/kg		.1 1		11/25/20 09:0 12 11/25/20 09:0		
PCB-1232 (Aroclor 1232)	ND	ug/kg		.1 1		12 11/25/20 09:0 12 11/25/20 09:0		
PCB-1242 (Aroclor 1242)	ND	ug/kg	39					
PCB-1248 (Aroclor 1248)	61.5	ug/kg		.1 1		12 11/25/20 09:0		
PCB-1254 (Aroclor 1254)	ND	ug/kg		.1 1		12 11/25/20 09:0		
PCB-1260 (Aroclor 1260)	ND	ug/kg	39	.1 1	11/24/20 15:4	12 11/25/20 09:0	8 11096-82-5	
Surrogates Decachlorobiphenyl (S)	66	%	10-1	60 1	11/24/20 15:4	12 11/25/20 09:0	8 2051-24-3	
6010D ATL ICP	Analytical Meth	nod: EDA 60	10D Preparation	Method:	EDA 3050B			
JOIND ALL IOI	•		•		L. A 3030D			
	Pace Analytica	i Services -	Peachtree Corne	15, GA				
Arsenic	ND	mg/kg	3	.2 1	11/24/20 11:1	8 11/24/20 19:1	3 7440-38-2	
Barium	2.6	mg/kg	1	.1 1	11/24/20 11:1	8 11/24/20 19:1	3 7440-39-3	
Cadmium	ND	mg/kg	1	.1 1	11/24/20 11:1	8 11/24/20 19:1	3 7440-43-9	
Chromium	3.5	mg/kg	1	.1 1	11/24/20 11:1	8 11/24/20 19:1	3 7440-47-3	
Lead	ND	mg/kg	26	.9 10	11/24/20 11:1	8 11/24/20 19:1	9 7439-92-1	D3
Selenium	ND	mg/kg		.3 1		8 11/24/20 19:1		
Silver	1.3	mg/kg		.1 1		8 11/30/20 16:1		
7471 Mercury	Analytical Meth	nod: FPA 74	71B Preparation	Method:	FPA 7471B			
			Peachtree Corne					
Mercury	ND	mg/kg	0.	26 1	11/24/20 12:3	30 11/24/20 15:4	4 7439-97-6	
8270E MSSV Microwave	Analytical Meth	nod: FPA 82	70E Preparation	Method:	FPA 3546			
0270L MOOV MICIOWAVE	Pace Analytica		•	woulde.	21710040			
Acenaphthene	ND	ug/kg	3	34 1	11/24/20 12:0	05 11/25/20 01:2	6 83-32-9	
Acenaphthylene	ND	ug/kg		34 1	11/24/20 12:0	5 11/25/20 01:2	6 208-96-8	
Aniline	ND	ug/kg		34 1		05 11/25/20 01:2		
Anthracene	ND	ug/kg		34 1	11/24/20 12:0	5 11/25/20 01:2	6 120-12-7	
Benzo(a)anthracene	ND	ug/kg		34 1	11/24/20 12:0	05 11/25/20 01:2	6 56-55-3	
Benzo(a)pyrene	ND	ug/kg		34 1		05 11/25/20 01:2		
Benzo(b)fluoranthene	ND	ug/kg		34 1		05 11/25/20 01:2		
Benzo(g,h,i)perylene	ND	ug/kg		34 1		05 11/25/20 01:2		
Benzo(k)fluoranthene	ND	ug/kg		34 1		05 11/25/20 01:2		
Benzoic Acid	ND	ug/kg	19			05 11/25/20 01:2 05 11/25/20 01:2		
Benzyl alcohol	ND	ug/kg ug/kg		20 i 37 1		05 11/25/20 01:2 05 11/25/20 01:2		
4-Bromophenylphenyl ether	ND	ug/kg ug/kg		37 I 34 1		05 11/25/20 01:2 05 11/25/20 01:2		
Butylbenzylphthalate	ND ND			34 1		05 11/25/20 01:2 05 11/25/20 01:2		
4-Chloro-3-methylphenol		ug/kg		54 I 57 1				
	ND ND	ug/kg				05 11/25/20 01:2		
4-Chloroaniline	ND	ug/kg		67 1		05 11/25/20 01:2		
bis(2-Chloroethoxy)methane	ND	ug/kg		34 1		05 11/25/20 01:2		
bis(2-Chloroethyl) ether	ND	ug/kg		34 1		05 11/25/20 01:2		
2-Chloronaphthalene	ND	ug/kg		34 1		05 11/25/20 01:2		
2-Chlorophenol	ND	ug/kg	3	34 1	11/24/20 12:0	)5 11/25/20 01:2	6 95-57-8	



Project: AWI Facility 1690019302

Pace Project No.: 92507319

Date: 11/30/2020 05:51 PM

Lab ID: 92507319001 Sample: WC-01 20201119 Collected: 11/19/20 12:00 Received: 11/19/20 16:45 Matrix: Solid Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions. **Parameters** Results Units Report Limit DF Prepared Analyzed CAS No. Qual 8270E MSSV Microwave Analytical Method: EPA 8270E Preparation Method: EPA 3546 Pace Analytical Services - Charlotte 4-Chlorophenylphenyl ether ND 384 ug/kg 1 11/24/20 12:05 11/25/20 01:26 7005-72-3 Chrysene ND ug/kg 384 1 11/24/20 12:05 11/25/20 01:26 218-01-9 Dibenz(a,h)anthracene ND ug/kg 384 1 11/24/20 12:05 11/25/20 01:26 53-70-3 ND 384 Dibenzofuran ug/kg 1 11/24/20 12:05 11/25/20 01:26 132-64-9 384 1,2-Dichlorobenzene ND ug/kg 1 11/24/20 12:05 11/25/20 01:26 95-50-1 ug/kg 1,3-Dichlorobenzene ND 384 11/24/20 12:05 11/25/20 01:26 541-73-1 1 1.4-Dichlorobenzene ND 384 11/24/20 12:05 11/25/20 01:26 106-46-7 ug/kg 1 767 3,3'-Dichlorobenzidine NΠ 11/24/20 12:05 11/25/20 01:26 91-94-1 ug/kg 1 ND 384 11/24/20 12:05 11/25/20 01:26 120-83-2 2,4-Dichlorophenol ug/kg 1 Diethylphthalate ND 384 1 11/24/20 12:05 11/25/20 01:26 84-66-2 ug/kg 384 2,4-Dimethylphenol ND ug/kg 1 11/24/20 12:05 11/25/20 01:26 105-67-9 384 Dimethylphthalate ND ug/kg 1 11/24/20 12:05 11/25/20 01:26 131-11-3 Di-n-butylphthalate ND ug/kg 384 1 11/24/20 12:05 11/25/20 01:26 84-74-2 4,6-Dinitro-2-methylphenol ND 767 11/24/20 12:05 11/25/20 01:26 534-52-1 ug/kg 1 2,4-Dinitrophenol ND ug/kg 1920 1 11/24/20 12:05 11/25/20 01:26 51-28-5 2,4-Dinitrotoluene ND ug/kg 384 1 11/24/20 12:05 11/25/20 01:26 121-14-2 2.6-Dinitrotoluene ND ug/kg 384 1 11/24/20 12:05 11/25/20 01:26 606-20-2 ND 384 11/24/20 12:05 11/25/20 01:26 117-84-0 Di-n-octylphthalate ug/kg 1 bis(2-Ethylhexyl)phthalate ND ug/kg 384 11/24/20 12:05 11/25/20 01:26 117-81-7 1 Fluoranthene ND 384 ug/kg 1 11/24/20 12:05 11/25/20 01:26 206-44-0 ND 384 Fluorene ug/kg 1 11/24/20 12:05 11/25/20 01:26 86-73-7 Hexachloro-1.3-butadiene ND ug/kg 384 1 11/24/20 12:05 11/25/20 01:26 87-68-3 Hexachlorobenzene ND ug/kg 384 1 11/24/20 12:05 11/25/20 01:26 118-74-1 Hexachlorocyclopentadiene ND ug/kg 384 1 11/24/20 12:05 11/25/20 01:26 77-47-4 v2 Hexachloroethane ND ug/kg 384 11/24/20 12:05 11/25/20 01:26 67-72-1 1 ND ug/kg 384 Indeno(1,2,3-cd)pyrene 1 11/24/20 12:05 11/25/20 01:26 193-39-5 Isophorone ND ug/kg 384 1 11/24/20 12:05 11/25/20 01:26 78-59-1 1-Methylnaphthalene ND ug/kg 384 1 11/24/20 12:05 11/25/20 01:26 90-12-0 ND 384 11/24/20 12:05 11/25/20 01:26 91-57-6 2-Methylnaphthalene ug/kg 1 ND 384 11/24/20 12:05 11/25/20 01:26 95-48-7 2-Methylphenol(o-Cresol) ug/kg 1 384 3&4-Methylphenol(m&p Cresol) ND 11/24/20 12:05 11/25/20 01:26 15831-10-4 ug/kg 1 ND 384 Naphthalene 11/24/20 12:05 11/25/20 01:26 91-20-3 ug/kg 1 ND 11/24/20 12:05 11/25/20 01:26 88-74-4 2-Nitroaniline ug/kg 1920 1 3-Nitroaniline ND ug/kg 1920 11/24/20 12:05 11/25/20 01:26 99-09-2 IL 1 4-Nitroaniline ND ug/kg 767 1 11/24/20 12:05 11/25/20 01:26 100-01-6 Nitrobenzene ND ug/kg 384 11/24/20 12:05 11/25/20 01:26 98-95-3 ND 384 11/24/20 12:05 11/25/20 01:26 88-75-5 2-Nitrophenol ug/kg ug/kg 1920 4-Nitrophenol ND 1 11/24/20 12:05 11/25/20 01:26 100-02-7 ug/kg N-Nitrosodimethylamine ND 384 11/24/20 12:05 11/25/20 01:26 62-75-9 1 ug/kg N-Nitroso-di-n-propylamine ND 384 11/24/20 12:05 11/25/20 01:26 621-64-7 1 ug/kg N-Nitrosodiphenylamine ND 384 11/24/20 12:05 11/25/20 01:26 86-30-6 1 2,2'-Oxybis(1-chloropropane) ND 384 11/24/20 12:05 11/25/20 01:26 108-60-1 ug/kg 1 Pentachlorophenol ND 767 87-86-5 ug/kg 1 11/24/20 12:05 11/25/20 01:26 Phenanthrene ND ug/kg 384 1 11/24/20 12:05 11/25/20 01:26 85-01-8 Phenol ND ug/kg 384 11/24/20 12:05 11/25/20 01:26 108-95-2

#### **REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.



Project: AWI Facility 1690019302

Pace Project No.: 92507319

Date: 11/30/2020 05:51 PM

Lab ID: 92507319001 Sample: WC-01 20201119 Collected: 11/19/20 12:00 Received: 11/19/20 16:45 Matrix: Solid Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions. **Parameters** Results Units Report Limit DF Prepared Analyzed CAS No. Qual 8270E MSSV Microwave Analytical Method: EPA 8270E Preparation Method: EPA 3546 Pace Analytical Services - Charlotte ND 384 Pyrene ug/kg 1 11/24/20 12:05 11/25/20 01:26 129-00-0 Pyridine ND ug/kg 384 1 11/24/20 12:05 11/25/20 01:26 110-86-1 1,2,4-Trichlorobenzene ND ug/kg 384 1 11/24/20 12:05 11/25/20 01:26 120-82-1 384 2,4,5-Trichlorophenol ND ug/kg 1 11/24/20 12:05 11/25/20 01:26 95-95-4 384 11/24/20 12:05 11/25/20 01:26 88-06-2 2,4,6-Trichlorophenol ND ug/kg Surrogates Nitrobenzene-d5 (S) 60 % 21-130 1 11/24/20 12:05 11/25/20 01:26 4165-60-0 2-Fluorobiphenyl (S) 46 % 19-130 1 11/24/20 12:05 11/25/20 01:26 321-60-8 Terphenyl-d14 (S) 43 % 15-130 1 11/24/20 12:05 11/25/20 01:26 1718-51-0 Phenol-d6 (S) 59 % 18-130 11/24/20 12:05 11/25/20 01:26 13127-88-3 1 % 2-Fluorophenol (S) 58 18-130 1 11/24/20 12:05 11/25/20 01:26 367-12-4 2,4,6-Tribromophenol (S) 67 % 18-130 1 11/24/20 12:05 11/25/20 01:26 118-79-6 8260D/5035A/5030B Volatiles Analytical Method: EPA 8260D Preparation Method: EPA 5035A/5030B Pace Analytical Services - Charlotte ND 109 11/20/20 15:30 11/20/20 20:33 67-64-1 Acetone ug/kg Benzene ND ug/kg 5.4 1 11/20/20 15:30 11/20/20 20:33 71-43-2 ND 5.4 11/20/20 15:30 11/20/20 20:33 108-86-1 Bromobenzene ug/kg 1 Bromochloromethane ND ug/kg 5.4 11/20/20 15:30 11/20/20 20:33 74-97-5 ΙK 1 Bromodichloromethane ND ug/kg 5.4 1 11/20/20 15:30 11/20/20 20:33 75-27-4 ND Bromoform ug/kg 5.4 1 11/20/20 15:30 11/20/20 20:33 75-25-2 ND 10.9 Bromomethane ug/kg 1 11/20/20 15:30 11/20/20 20:33 74-83-9 2-Butanone (MEK) ND ug/kg 109 1 11/20/20 15:30 11/20/20 20:33 78-93-3 n-Butylbenzene ND ug/kg 5.4 1 11/20/20 15:30 11/20/20 20:33 104-51-8 sec-Butylbenzene ND ug/kg 5.4 1 11/20/20 15:30 11/20/20 20:33 135-98-8 tert-Butylbenzene ND 5.4 11/20/20 20:33 ug/kg 1 11/20/20 15:30 98-06-6 L2,v2 Carbon tetrachloride ND ug/kg 5.4 1 11/20/20 15:30 11/20/20 20:33 56-23-5 Chlorobenzene ND ug/kg 5.4 1 11/20/20 15:30 11/20/20 20:33 108-90-7 Chloroethane ND 10.9 11/20/20 15:30 11/20/20 20:33 75-00-3 ug/kg 1 ND 5.4 Chloroform ug/kg 11/20/20 15:30 11/20/20 20:33 67-66-3 1 NΠ 10.9 11/20/20 15:30 11/20/20 20:33 74-87-3 Chloromethane ug/kg v2 1 ND 5.4 11/20/20 15:30 11/20/20 20:33 95-49-8 2-Chlorotoluene ug/kg 1 ND 11/20/20 15:30 11/20/20 20:33 106-43-4 4-Chlorotoluene ug/kg 5.4 1 1,2-Dibromo-3-chloropropane ND ug/kg 5.4 1 11/20/20 15:30 11/20/20 20:33 96-12-8 Dibromochloromethane ND ug/kg 5.4 1 11/20/20 15:30 11/20/20 20:33 124-48-1 1,2-Dibromoethane (EDB) ND ug/kg 5.4 11/20/20 15:30 11/20/20 20:33 106-93-4 ND 5.4 11/20/20 15:30 11/20/20 20:33 74-95-3 Dibromomethane ug/kg 1 ug/kg 1,2-Dichlorobenzene ND 5.4 1 11/20/20 15:30 11/20/20 20:33 95-50-1 ug/kg 1,3-Dichlorobenzene ND 5.4 11/20/20 15:30 11/20/20 20:33 541-73-1 1 ug/kg ND 5.4 11/20/20 15:30 11/20/20 20:33 106-46-7 1.4-Dichlorobenzene 1 ug/kg 11/20/20 15:30 11/20/20 20:33 75-71-8 Dichlorodifluoromethane ND 10.9 1 ND 11/20/20 15:30 11/20/20 20:33 75-34-3 1.1-Dichloroethane ug/kg 5.4 1 ND ug/kg 5.4 11/20/20 15:30 11/20/20 20:33 107-06-2 1.2-Dichloroethane 1 1.1-Dichloroethene ND ug/kg 5.4 1 11/20/20 15:30 11/20/20 20:33 75-35-4 cis-1,2-Dichloroethene ND ug/kg 5.4 1 11/20/20 15:30 11/20/20 20:33 156-59-2



Project: AWI Facility 1690019302

Pace Project No.: 92507319

Date: 11/30/2020 05:51 PM

Lab ID: 92507319001 Sample: WC-01 20201119 Collected: 11/19/20 12:00 Received: 11/19/20 16:45 Matrix: Solid Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions. **Parameters** Results Units Report Limit DF Prepared Analyzed CAS No. Qual Analytical Method: EPA 8260D Preparation Method: EPA 5035A/5030B 8260D/5035A/5030B Volatiles Pace Analytical Services - Charlotte ND 5.4 trans-1,2-Dichloroethene ug/kg 1 11/20/20 15:30 11/20/20 20:33 156-60-5 1,2-Dichloropropane ND ug/kg 5.4 1 11/20/20 15:30 11/20/20 20:33 78-87-5 1,3-Dichloropropane ND ug/kg 5.4 1 11/20/20 15:30 11/20/20 20:33 142-28-9 ND 11/20/20 15:30 11/20/20 20:33 2,2-Dichloropropane ug/kg 5.4 1 594-20-7 11/20/20 15:30 11/20/20 20:33 563-58-6 1,1-Dichloropropene ND ug/kg 5.4 1 cis-1,3-Dichloropropene ND ug/kg 5.4 11/20/20 15:30 11/20/20 20:33 10061-01-5 1 trans-1,3-Dichloropropene ND 5.4 11/20/20 15:30 11/20/20 20:33 10061-02-6 ug/kg 1 ND 5.4 Diisopropyl ether 11/20/20 15:30 11/20/20 20:33 108-20-3 v2 ug/kg 1 Ethylbenzene ND 5.4 11/20/20 15:30 11/20/20 20:33 100-41-4 ug/kg 1 Hexachloro-1,3-butadiene ND 10.9 11/20/20 15:30 11/20/20 20:33 87-68-3 ug/kg 1 2-Hexanone ND ug/kg 54.3 1 11/20/20 15:30 11/20/20 20:33 591-78-6 Isopropylbenzene (Cumene) ND ug/kg 5.4 1 11/20/20 15:30 11/20/20 20:33 98-82-8 p-Isopropyltoluene ND ug/kg 5.4 1 11/20/20 15:30 11/20/20 20:33 99-87-6 Methylene Chloride ND 21.7 11/20/20 15:30 11/20/20 20:33 75-09-2 ug/kg 1 4-Methyl-2-pentanone (MIBK) ND ug/kg 54.3 1 11/20/20 15:30 11/20/20 20:33 108-10-1 Methyl-tert-butyl ether ND ug/kg 5.4 1 11/20/20 15:30 11/20/20 20:33 1634-04-4 Naphthalene ND ug/kg 5.4 1 11/20/20 15:30 11/20/20 20:33 91-20-3 n-Propylbenzene ND 5.4 11/20/20 15:30 11/20/20 20:33 103-65-1 ug/kg 1 11/20/20 15:30 11/20/20 20:33 100-42-5 Styrene ND ug/kg 5.4 1 ND 1.1.1.2-Tetrachloroethane ug/kg 5.4 1 11/20/20 15:30 11/20/20 20:33 630-20-6 ND 5.4 1,1,2,2-Tetrachloroethane ug/kg 1 11/20/20 15:30 11/20/20 20:33 79-34-5 Tetrachloroethene ND 5.4 11/20/20 15:30 11/20/20 20:33 127-18-4 ug/kg 1 Toluene ND ug/kg 5.4 1 11/20/20 15:30 11/20/20 20:33 108-88-3 1,2,3-Trichlorobenzene ND ug/kg 5.4 1 11/20/20 15:30 11/20/20 20:33 87-61-6 1,2,4-Trichlorobenzene ND ug/kg 5.4 11/20/20 15:30 11/20/20 20:33 120-82-1 1 1,1,1-Trichloroethane ND ug/kg 5.4 11/20/20 15:30 11/20/20 20:33 71-55-6 1 1,1,2-Trichloroethane ND ug/kg 5.4 1 11/20/20 15:30 11/20/20 20:33 79-00-5 Trichloroethene ND ug/kg 5.4 1 11/20/20 15:30 11/20/20 20:33 79-01-6 Trichlorofluoromethane ND 5.4 11/20/20 15:30 11/20/20 20:33 75-69-4 ug/kg 1 ND 5.4 11/20/20 15:30 11/20/20 20:33 96-18-4 1,2,3-Trichloropropane ug/kg 1 ND 1,2,4-Trimethylbenzene 5.4 11/20/20 15:30 11/20/20 20:33 95-63-6 ug/kg 1 ND 1,3,5-Trimethylbenzene 5.4 11/20/20 15:30 11/20/20 20:33 108-67-8 ug/kg 1 ND 54.3 11/20/20 15:30 11/20/20 20:33 108-05-4 Vinyl acetate ug/kg 1 Vinyl chloride ND ug/kg 10.9 1 11/20/20 15:30 11/20/20 20:33 75-01-4 Xylene (Total) ND ug/kg 10.9 1 11/20/20 15:30 11/20/20 20:33 1330-20-7 m&p-Xylene ND ug/kg 10.9 11/20/20 15:30 11/20/20 20:33 179601-23-1 o-Xylene ND 11/20/20 15:30 11/20/20 20:33 95-47-6 ug/kg 5.4 Surrogates 98 % 70-130 1 11/20/20 15:30 11/20/20 20:33 2037-26-5 Toluene-d8 (S) 4-Bromofluorobenzene (S) 99 % 69-134 1 11/20/20 15:30 11/20/20 20:33 460-00-4 1,2-Dichloroethane-d4 (S) 93 % 70-130 1 11/20/20 15:30 11/20/20 20:33 17060-07-0 Analytical Method: ASTM D2974-87 Percent Moisture Pace Analytical Services - Charlotte Percent Moisture 15.4 % 0.101 11/20/20 17:43



Project: AWI Facility 1690019302

Pace Project No.: 92507319

Date: 11/30/2020 05:51 PM

QC Batch: 582413 Analysis Method: EPA 6010D
QC Batch Method: EPA 3050B Analysis Description: 6010D ATL

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92507319001

METHOD BLANK: 3080023 Matrix: Solid

Associated Lab Samples: 92507319001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	ND	2.8	11/24/20 18:51	
Barium	mg/kg	ND	0.93	11/24/20 18:51	
Cadmium	mg/kg	ND	0.93	11/24/20 18:51	
Chromium	mg/kg	ND	0.93	11/24/20 18:51	
Lead	mg/kg	ND	2.3	11/30/20 16:23	
Selenium	mg/kg	ND	3.7	11/24/20 18:51	
Silver	mg/kg	ND	0.93	11/30/20 16:23	

LABORATORY CONTROL SAMPLE:	3080024	Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	% Rec	Qualifiers
Arsenic	mg/kg	98	99.0	101	80-120	
Barium	mg/kg	98	97.2	99	80-120	
Cadmium	mg/kg	98	96.1	98	80-120	
Chromium	mg/kg	98	98.8	101	80-120	
Lead	mg/kg	98	101	103	80-120	
Selenium	mg/kg	98	96.7	99	80-120	
Silver	mg/kg	98	97.6	100	80-120	

MATRIX SPIKE & MATRIX	SPIKE DUPLIC	CATE: 3080	3080026									
Parameter	9 Units	2507443001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
												Quai
Arsenic	mg/kg	5.4	145	139	162	157	108	109	75-125	3	20	
Barium	mg/kg	6.4	145	139	164	160	109	111	75-125	2	20	
Cadmium	mg/kg	ND	145	139	153	145	106	104	75-125	5	20	
Chromium	mg/kg	12.0	145	139	156	154	99	102	75-125	1	20	
Lead	mg/kg	ND	145	139	104	99.8	72	72	75-125	4	20	M1
Selenium	mg/kg	10.5	145	139	165	158	107	106	75-125	4	20	
Silver	ma/ka	ND	145	139	154	153	107	110	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project:

AWI Facility 1690019302

Pace Project No.:

92507319

QC Batch:

QC Batch Method:

582668 EPA 7471B Analysis Method:

EPA 7471B

Analysis Description:

7471 Mercury

Laboratory:

Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples:

METHOD BLANK:

Matrix: Solid

Associated Lab Samples:

92507319001

92507319001

Blank

Result

Reporting Limit

0.32

Qualifiers Analyzed

Mercury

Units mg/kg

Units

mg/kg

ND

0.24 11/24/20 14:47

LABORATORY CONTROL SAMPLE:

Parameter

Parameter

3080990

Spike Conc.

0.32

LCS Result

LCS % Rec % Rec Limits

80-120

Qualifiers

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:

3080991

MSD

92507759006

MS

MS

MSD

MS % Rec

96

MSD

% Rec

Max RPD

Spike Conc.

Result

3080992

99

% Rec

Parameter

Mercury

Units Result Spike

0.31

0.30

**RPD** 

Mercury

Date: 11/30/2020 05:51 PM

ND mg/kg

Conc.

0.33

Result 0.33 100

Limits 75-125

Qual 20 8

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507319

Date: 11/30/2020 05:51 PM

QC Batch: 581966 Analysis Method: EPA 8260D

QC Batch Method: EPA 5035A/5030B Analysis Description: 8260D 5035A 5030B

Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92507319001

METHOD BLANK: 3077983 Matrix: Solid

Associated Lab Samples: 92507319001

		Blank Reporting			
Parameter	Units	Result	Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	ND	5.0	11/20/20 15:35	
1,1,1-Trichloroethane	ug/kg	ND	5.0	11/20/20 15:35	
1,1,2,2-Tetrachloroethane	ug/kg	ND	5.0	11/20/20 15:35	
1,1,2-Trichloroethane	ug/kg	ND	5.0	11/20/20 15:35	
1,1-Dichloroethane	ug/kg	ND	5.0	11/20/20 15:35	
1,1-Dichloroethene	ug/kg	ND	5.0	11/20/20 15:35	
1,1-Dichloropropene	ug/kg	ND	5.0	11/20/20 15:35	
1,2,3-Trichlorobenzene	ug/kg	ND	5.0	11/20/20 15:35	
1,2,3-Trichloropropane	ug/kg	ND	5.0	11/20/20 15:35	
1,2,4-Trichlorobenzene	ug/kg	ND	5.0	11/20/20 15:35	
1,2,4-Trimethylbenzene	ug/kg	ND	5.0	11/20/20 15:35	
1,2-Dibromo-3-chloropropane	ug/kg	ND	5.0	11/20/20 15:35	
1,2-Dibromoethane (EDB)	ug/kg	ND	5.0	11/20/20 15:35	
1,2-Dichlorobenzene	ug/kg	ND	5.0	11/20/20 15:35	
1,2-Dichloroethane	ug/kg	ND	5.0	11/20/20 15:35	
1,2-Dichloropropane	ug/kg	ND	5.0	11/20/20 15:35	
1,3,5-Trimethylbenzene	ug/kg	ND	5.0	11/20/20 15:35	
1,3-Dichlorobenzene	ug/kg	ND	5.0	11/20/20 15:35	
1,3-Dichloropropane	ug/kg	ND	5.0	11/20/20 15:35	
1,4-Dichlorobenzene	ug/kg	ND	5.0	11/20/20 15:35	
2,2-Dichloropropane	ug/kg	ND	5.0	11/20/20 15:35	
2-Butanone (MEK)	ug/kg	ND	100	11/20/20 15:35	
2-Chlorotoluene	ug/kg	ND	5.0	11/20/20 15:35	
2-Hexanone	ug/kg	ND	50.0	11/20/20 15:35	
4-Chlorotoluene	ug/kg	ND	5.0	11/20/20 15:35	
4-Methyl-2-pentanone (MIBK)	ug/kg	ND	50.0	11/20/20 15:35	
Acetone	ug/kg	ND	100	11/20/20 15:35	
Benzene	ug/kg	ND	5.0	11/20/20 15:35	
Bromobenzene	ug/kg	ND	5.0	11/20/20 15:35	
Bromochloromethane	ug/kg	ND	5.0	11/20/20 15:35	IK
Bromodichloromethane	ug/kg	ND	5.0	11/20/20 15:35	
Bromoform	ug/kg	ND	5.0	11/20/20 15:35	
Bromomethane	ug/kg	ND	10.0	11/20/20 15:35	
Carbon tetrachloride	ug/kg	ND	5.0	11/20/20 15:35	
Chlorobenzene	ug/kg	ND	5.0	11/20/20 15:35	
Chloroethane	ug/kg	ND	10.0	11/20/20 15:35	
Chloroform	ug/kg	ND	5.0	11/20/20 15:35	
Chloromethane	ug/kg	ND	10.0	11/20/20 15:35	v2
cis-1,2-Dichloroethene	ug/kg	ND	5.0	11/20/20 15:35	
cis-1,3-Dichloropropene	ug/kg	ND	5.0	11/20/20 15:35	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507319

Date: 11/30/2020 05:51 PM

METHOD BLANK: 3077983 Matrix: Solid

Associated Lab Samples: 92507319001

_		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Dibromochloromethane	ug/kg	ND	5.0	11/20/20 15:35	
Dibromomethane	ug/kg	ND	5.0	11/20/20 15:35	
Dichlorodifluoromethane	ug/kg	ND	10.0	11/20/20 15:35	
Diisopropyl ether	ug/kg	ND	5.0	11/20/20 15:35	v2
Ethylbenzene	ug/kg	ND	5.0	11/20/20 15:35	
Hexachloro-1,3-butadiene	ug/kg	ND	10.0	11/20/20 15:35	
Isopropylbenzene (Cumene)	ug/kg	ND	5.0	11/20/20 15:35	
m&p-Xylene	ug/kg	ND	10.0	11/20/20 15:35	
Methyl-tert-butyl ether	ug/kg	ND	5.0	11/20/20 15:35	
Methylene Chloride	ug/kg	ND	20.0	11/20/20 15:35	
n-Butylbenzene	ug/kg	ND	5.0	11/20/20 15:35	
n-Propylbenzene	ug/kg	ND	5.0	11/20/20 15:35	
Naphthalene	ug/kg	ND	5.0	11/20/20 15:35	
o-Xylene	ug/kg	ND	5.0	11/20/20 15:35	
o-Isopropyltoluene	ug/kg	ND	5.0	11/20/20 15:35	
sec-Butylbenzene	ug/kg	ND	5.0	11/20/20 15:35	
Styrene	ug/kg	ND	5.0	11/20/20 15:35	
tert-Butylbenzene	ug/kg	ND	5.0	11/20/20 15:35	v2
Tetrachloroethene	ug/kg	ND	5.0	11/20/20 15:35	
Toluene	ug/kg	ND	5.0	11/20/20 15:35	
trans-1,2-Dichloroethene	ug/kg	ND	5.0	11/20/20 15:35	
trans-1,3-Dichloropropene	ug/kg	ND	5.0	11/20/20 15:35	
Trichloroethene	ug/kg	ND	5.0	11/20/20 15:35	
Trichlorofluoromethane	ug/kg	ND	5.0	11/20/20 15:35	
Vinyl acetate	ug/kg	ND	50.0	11/20/20 15:35	
Vinyl chloride	ug/kg	ND	10.0	11/20/20 15:35	
Xylene (Total)	ug/kg	ND	10.0	11/20/20 15:35	
1,2-Dichloroethane-d4 (S)	%	99	70-130	11/20/20 15:35	
4-Bromofluorobenzene (S)	%	100	69-134	11/20/20 15:35	
Toluene-d8 (S)	%	99	70-130	11/20/20 15:35	

LABORATORY CONTROL SAMPLE:	3077984					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	1250	1020	81	70-130	
1,1,1-Trichloroethane	ug/kg	1250	1110	89	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	1250	1010	81	70-130	
1,1,2-Trichloroethane	ug/kg	1250	1160	93	70-130	
1,1-Dichloroethane	ug/kg	1250	1020	81	70-130	
1,1-Dichloroethene	ug/kg	1250	1060	85	70-130	
1,1-Dichloropropene	ug/kg	1250	1050	84	70-130	
1,2,3-Trichlorobenzene	ug/kg	1250	1200	96	65-130	
1,2,3-Trichloropropane	ug/kg	1250	1030	82	70-130	
1,2,4-Trichlorobenzene	ug/kg	1250	1230	98	68-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

## **REPORT OF LABORATORY ANALYSIS**

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.



Project: AWI Facility 1690019302

Pace Project No.: 92507319

Date: 11/30/2020 05:51 PM

LABORATORY CONTROL SAMPLE:	3077984	Spike	LCS	LCS	% Rec
Parameter	Units	Conc.	Result	% Rec	Limits Qualifie
1,2,4-Trimethylbenzene	ug/kg		1120		70-130
1,2-Dibromo-3-chloropropane	ug/kg	1250	1060	84	70-130
1,2-Dibromoethane (EDB)	ug/kg	1250	1040	83	70-130
1,2-Dichlorobenzene	ug/kg	1250	1100	88	70-130
1,2-Dichloroethane	ug/kg	1250	1100	88	63-130
1,2-Dichloropropane	ug/kg	1250	1040	83	70-130
I,3,5-Trimethylbenzene	ug/kg	1250	1240	99	70-130
,3-Dichlorobenzene	ug/kg	1250	1160	93	70-130
,3-Dichloropropane	ug/kg	1250	1080	87	70-130
,4-Dichlorobenzene	ug/kg ug/kg	1250	1120	89	70-130
2,2-Dichloropropane	ug/kg ug/kg	1250	1120	90	66-130
		2500	2170	90 87	70-130
-Butanone (MEK) -Chlorotoluene	ug/kg	2500 1250	1100	88	70-130 70-130
	ug/kg		2130		70-130 70-130
2-Hexanone I-Chlorotoluene	ug/kg	2500 1250	1060	85 85	70-130 70-130
	ug/kg				
-Methyl-2-pentanone (MIBK)	ug/kg	2500	2130	85	70-130
Acetone	ug/kg	2500	2250	90	69-130
Benzene	ug/kg	1250	1010	81	70-130
Bromobenzene	ug/kg	1250	1110	89	70-130
Bromochloromethane	ug/kg	1250	1150	92	70-130 IK
Bromodichloromethane	ug/kg	1250	1080	87	69-130
Bromoform	ug/kg	1250	1050	84	70-130
Bromomethane	ug/kg	1250	1490	119	52-130
Carbon tetrachloride	ug/kg	1250	1000	80	70-130
Chlorobenzene	ug/kg	1250	1080	86	70-130
Chloroethane	ug/kg	1250	1070	86	65-130
Chloroform	ug/kg	1250	995	80	70-130
Chloromethane	ug/kg	1250	923	74	55-130 v3
is-1,2-Dichloroethene	ug/kg	1250	1010	81	70-130
is-1,3-Dichloropropene	ug/kg	1250	1050	84	70-130
Dibromochloromethane	ug/kg	1250	1050	84	70-130
Dibromomethane	ug/kg	1250	1100	88	70-130
Dichlorodifluoromethane	ug/kg	1250	1050	84	45-156
Diisopropyl ether	ug/kg	1250	969	78	70-130 v3
thylbenzene	ug/kg	1250	1210	97	70-130
lexachloro-1,3-butadiene	ug/kg	1250	1250	100	66-130
sopropylbenzene (Cumene)	ug/kg	1250	1110	89	70-130
n&p-Xylene	ug/kg	2500	2100	84	70-130
Methyl-tert-butyl ether	ug/kg	1250	1010	81	70-130
Methylene Chloride	ug/kg	1250	1100	88	65-130
-Butylbenzene	ug/kg	1250	1170	93	67-130
-Propylbenzene	ug/kg	1250	1090	87	70-130
laphthalene	ug/kg	1250	1210	97	70-130
o-Xylene	ug/kg	1250	1050	84	70-130
-Isopropyltoluene	ug/kg	1250	1140	91	67-130
ec-Butylbenzene	ug/kg	1250	1140	92	69-130
Styrene	ug/kg	1250	1060	85	70-130

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507319

Date: 11/30/2020 05:51 PM

LABORATORY CONTROL SAMPLE:	3077984					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
tert-Butylbenzene	ug/kg	1250	805	64	67-130	L2,v3
Tetrachloroethene	ug/kg	1250	1080	87	70-130	
Toluene	ug/kg	1250	1030	82	70-130	
trans-1,2-Dichloroethene	ug/kg	1250	1030	82	70-130	
trans-1,3-Dichloropropene	ug/kg	1250	1010	81	68-130	
Trichloroethene	ug/kg	1250	1070	85	70-130	
Trichlorofluoromethane	ug/kg	1250	1020	82	70-130	
Vinyl acetate	ug/kg	2500	2230	89	70-130	
Vinyl chloride	ug/kg	1250	1010	81	61-130	
Xylene (Total)	ug/kg	3750	3150	84	70-130	
1,2-Dichloroethane-d4 (S)	%			86	70-130	
4-Bromofluorobenzene (S)	%			98	69-134	
Toluene-d8 (S)	%			99	70-130	

MATRIX SPIKE & MATRIX S	PIKE DUPLI	CATE: 3077	985		3077986							
Parameter	Units	92506828004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qua
1,1,1,2-Tetrachloroethane	ug/kg	ND	4140	4140	3720	3630	90	87	70-131	3	30	
1,1,1-Trichloroethane	ug/kg	ND	4140	4140	4140	4030	100	97	65-133	3	30	
1,1,2,2-Tetrachloroethane	ug/kg	ND	4140	4140	3840	3720	93	90	66-130	3	30	
1,1,2-Trichloroethane	ug/kg	ND	4140	4140	4380	4390	106	106	66-133	0	30	
1,1-Dichloroethane	ug/kg	ND	4140	4140	3870	3700	93	89	65-130	4	30	
1,1-Dichloroethene	ug/kg	ND	4140	4140	3990	3840	96	93	10-158	4	30	
1,1-Dichloropropene	ug/kg	ND	4140	4140	3910	3790	94	91	68-133	3	30	
1,2,3-Trichlorobenzene	ug/kg	ND	4140	4140	4190	4150	101	100	27-138	1	30	
1,2,3-Trichloropropane	ug/kg	ND	4140	4140	3740	3670	90	89	67-130	2	30	
1,2,4-Trichlorobenzene	ug/kg	ND	4140	4140	4180	4220	101	102	51-134	1	30	
1,2,4-Trimethylbenzene	ug/kg	23100	4140	4140	25700	25900	61	67	63-136	1	30	M1
1,2-Dibromo-3- chloropropane	ug/kg	ND	4140	4140	3590	3590	87	87	32-130	0	30	
1,2-Dibromoethane (EDB)	ug/kg	ND	4140	4140	3760	3730	91	90	70-130	1	30	
1,2-Dichlorobenzene	ug/kg	ND	4140	4140	4020	3920	97	95	69-130	2	30	
1,2-Dichloroethane	ug/kg	ND	4140	4140	4160	4080	100	98	59-130	2	30	
1,2-Dichloropropane	ug/kg	ND	4140	4140	3900	3820	94	92	70-130	2	30	
1,3,5-Trimethylbenzene	ug/kg	7430	4140	4140	11400	11400	97	97	65-137	0	30	
1,3-Dichlorobenzene	ug/kg	ND	4140	4140	4130	4030	100	97	70-130	2	30	
1,3-Dichloropropane	ug/kg	ND	4140	4140	3990	3890	96	94	70-130	2	30	
1,4-Dichlorobenzene	ug/kg	ND	4140	4140	3970	3940	96	95	68-130	1	30	
2,2-Dichloropropane	ug/kg	ND	4140	4140	3120	3040	75	73	32-130	3	30	
2-Butanone (MEK)	ug/kg	ND	8290	8290	8210	7950	99	96	10-136	3	30	
2-Chlorotoluene	ug/kg	ND	4140	4140	4620	4590	111	111	69-141	1	30	
2-Hexanone	ug/kg	ND	8290	8290	8220	8010	99	97	10-144	3	30	
4-Chlorotoluene	ug/kg	ND	4140	4140	3730	3790	90	92	70-132	2	30	
4-Methyl-2-pentanone (MIBK)	ug/kg	420	8290	8290	8260	8100	94	93	25-143	2	30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507319

Date: 11/30/2020 05:51 PM

MATRIX SPIKE & MATRIX SP	IKE DUPI	LICATE: 3077			3077986							
			MS	MSD								
		92506828004	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qu
Acetone	ug/kg	ND	8290	8290	8120	7470	98	90	10-130	8	30	
Benzene	ug/kg	1230	4140	4140	5040	4960	92	90	67-130	1	30	
Bromobenzene	ug/kg	ND	4140	4140	3980	3950	96	95	70-130	1	30	
Bromochloromethane	ug/kg	ND	4140	4140	4200	4060	101	98	69-134	3	30	IK
Bromodichloromethane	ug/kg	ND	4140	4140	3880	3770	94	91	64-130	3	30	
Bromoform	ug/kg	ND	4140	4140	3400	3360	82	81	62-130	1	30	
Bromomethane	ug/kg	ND	4140	4140	2840	2490	68	60	20-176	13	30	
Carbon tetrachloride	ug/kg	ND	4140	4140	3610	3530	87	85	65-140	2	30	
Chlorobenzene	ug/kg	ND	4140	4140	4010	3990	97	96	70-130	1	30	
Chloroethane	ug/kg	ND	4140	4140	933	981	23	24	10-130	5	30	
Chloroform	ug/kg	ND	4140	4140	3740	3690	90	89	63-130	2	30	
Chloromethane	ug/kg	ND	4140	4140	3900	3760	94	91	58-130	4	30	v3
sis-1,2-Dichloroethene	ug/kg	ND	4140	4140	3790	3680	91	89	66-130	3	30	
sis-1,3-Dichloropropene	ug/kg	ND	4140	4140	3640	3550	88	86	67-130	2	30	
Dibromochloromethane	ug/kg	ND	4140	4140	3540	3500	85	85	67-130	1	30	
Dibromomethane	ug/kg	ND	4140	4140	4010	3910	97	94	63-131	3	30	
Dichlorodifluoromethane	ug/kg	ND	4140	4140	4080	3960	98	95	44-180	3	30	
Diisopropyl ether	ug/kg	ND	4140	4140	3550	3430	86	83	63-130	3	30	v3
Ethylbenzene	ug/kg	5970	4140	4140	10200	10300	102	104	66-130	1	30	
Hexachloro-1,3-butadiene	ug/kg	ND	4140	4140	4460	4400	108	106	64-150	1	30	
sopropylbenzene Cumene)	ug/kg	636	4140	4140	4700	4680	98	98	69-135	0		
n&p-Xylene	ug/kg	13500	8290	8290	20400	20700	84	88	60-133	1	30	
Methyl-tert-butyl ether	ug/kg	ND	4140	4140	3710	3590	89	87	65-130	3	30	
Methylene Chloride	ug/kg	ND	4140	4140	4470	4330	108	104	61-130	3	30	
n-Butylbenzene	ug/kg	1390	4140	4140	5300	5520	94	100	65-140	4	30	
n-Propylbenzene	ug/kg	2990	4140	4140	6740	6730	90	90	67-140	0	30	
Naphthalene	ug/kg	6140	4140	4140	10600	10500	107	105	15-145	1	30	
-Xylene	ug/kg	676	4140	4140	4540	4560	93	94	66-133	0	30	
o-Isopropyltoluene	ug/kg	ND	4140	4140	4720	4780	114	115	56-147	1	30	
ec-Butylbenzene	ug/kg	ND	4140	4140	4300	4270	104	103	65-139	1	30	
Styrene	ug/kg	57.8	4140	4140	4020	3980	96	95	70-132	1	30	
ert-Butylbenzene	ug/kg	ND	4140	4140	2960	2970	71	72	62-135	0	30	v3
- Tetrachloroethene	ug/kg	ND	4140	4140	3800	3900	92	94	70-135	3	30	
oluene	ug/kg	874	4140	4140	4580	4500	89	87	67-130	2		
rans-1,2-Dichloroethene	ug/kg	ND	4140	4140	3850	3790	93	91	69-130	2		
rans-1,3-Dichloropropene	ug/kg	ND	4140	4140	3510	3420	85	82	62-130	3		
richloroethene	ug/kg	ND	4140	4140	3950	3880	95	94	70-135	2		
richlorofluoromethane	ug/kg	ND	4140	4140	3490	3450	84	83	10-130	1		
/inyl acetate	ug/kg	ND	8290	8290	7150	7010	86	85	53-130	2		
/inyl chloride	ug/kg	ND	4140	4140	4030	3930	97	95	61-148	3		
(ylene (Total)	ug/kg	14100	12400	12400	25000	25300	87	90	63-132	1		
,2-Dichloroethane-d4 (S)	www.	17100	12700	12700	20000	20000	92	91	70-130	'	50	
-Bromofluorobenzene (S)	% %						100	103	69-134			
	/0						100	103	05-134			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507319

QC Batch: 582744 Analysis Method: EPA 8082A
QC Batch Method: EPA 3546 Analysis Description: 8082 GCS PCB

Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92507319001

METHOD BLANK: 3081548 Matrix: Solid

3081549

Associated Lab Samples: 92507319001

LABORATORY CONTROL SAMPLE:

Date: 11/30/2020 05:51 PM

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
- arameter				Analyzed	————
PCB-1016 (Aroclor 1016)	ug/kg	ND	32.7	11/25/20 10:20	
PCB-1221 (Aroclor 1221)	ug/kg	ND	32.7	11/25/20 10:20	
PCB-1232 (Aroclor 1232)	ug/kg	ND	32.7	11/25/20 10:20	
PCB-1242 (Aroclor 1242)	ug/kg	ND	32.7	11/25/20 10:20	
PCB-1248 (Aroclor 1248)	ug/kg	ND	32.7	11/25/20 10:20	
PCB-1254 (Aroclor 1254)	ug/kg	ND	32.7	11/25/20 10:20	
PCB-1260 (Aroclor 1260)	ug/kg	ND	32.7	11/25/20 10:20	
Decachlorobiphenyl (S)	%	88	10-160	11/25/20 10:20	

	11.7	Spike	LCS	LCS	% Rec	0 1111
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/kg	166	122	74	54-130	
DCD 1260 (Arcolor 1260)	ua/ka	166	116	70	47 120	

PCB-1260 (Aroclor 1260) ug/kg 166 116 70 47-139 Decachlorobiphenyl (S) % 83 10-160

MATRIX SPIKE & MATRIX SF	PIKE DUPL	ICATE: 3081	550		3081551							
			MS	MSD								
		92507319001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
PCB-1016 (Aroclor 1016)	ug/kg		196	197	167	146	85	74	17-131	13	30	
PCB-1260 (Aroclor 1260)	ug/kg	ND	196	197	140	140	72	71	10-142	0	30	
Decachlorobiphenyl (S)	%						72	73	10-160			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507319

Date: 11/30/2020 05:51 PM

QC Batch: 582645 Analysis Method: EPA 8270E

QC Batch Method: EPA 3546 Analysis Description: 8270E Solid MSSV Microwave

Laboratory: Pace Analytical Services - Charlotte

Associated Lab Samples: 92507319001

METHOD BLANK: 3080887 Matrix: Solid

Associated Lab Samples: 92507319001

	Blank		Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	ND	329	11/24/20 18:56	
1,2-Dichlorobenzene	ug/kg	ND	329	11/24/20 18:56	
1,3-Dichlorobenzene	ug/kg	ND	329	11/24/20 18:56	
1,4-Dichlorobenzene	ug/kg	ND	329	11/24/20 18:56	
1-Methylnaphthalene	ug/kg	ND	329	11/24/20 18:56	
2,2'-Oxybis(1-chloropropane)	ug/kg	ND	329	11/24/20 18:56	
2,4,5-Trichlorophenol	ug/kg	ND	329	11/24/20 18:56	
2,4,6-Trichlorophenol	ug/kg	ND	329	11/24/20 18:56	
2,4-Dichlorophenol	ug/kg	ND	329	11/24/20 18:56	
2,4-Dimethylphenol	ug/kg	ND	329	11/24/20 18:56	
2,4-Dinitrophenol	ug/kg	ND	1640	11/24/20 18:56	
2,4-Dinitrotoluene	ug/kg	ND	329	11/24/20 18:56	
2,6-Dinitrotoluene	ug/kg	ND	329	11/24/20 18:56	
2-Chloronaphthalene	ug/kg	ND	329	11/24/20 18:56	
2-Chlorophenol	ug/kg	ND	329	11/24/20 18:56	
2-Methylnaphthalene	ug/kg	ND	329	11/24/20 18:56	
2-Methylphenol(o-Cresol)	ug/kg	ND	329	11/24/20 18:56	
2-Nitroaniline	ug/kg	ND	1640	11/24/20 18:56	
2-Nitrophenol	ug/kg	ND	329	11/24/20 18:56	
3&4-Methylphenol(m&p Cresol)	ug/kg	ND	329	11/24/20 18:56	
3,3'-Dichlorobenzidine	ug/kg	ND	658	11/24/20 18:56	
3-Nitroaniline	ug/kg	ND	1640	11/24/20 18:56	IL
4,6-Dinitro-2-methylphenol	ug/kg	ND	658	11/24/20 18:56	
4-Bromophenylphenyl ether	ug/kg	ND	329	11/24/20 18:56	
4-Chloro-3-methylphenol	ug/kg	ND	658	11/24/20 18:56	
4-Chloroaniline	ug/kg	ND	658	11/24/20 18:56	
4-Chlorophenylphenyl ether	ug/kg	ND	329	11/24/20 18:56	
4-Nitroaniline	ug/kg	ND	658	11/24/20 18:56	
4-Nitrophenol	ug/kg	ND	1640	11/24/20 18:56	
Acenaphthene	ug/kg	ND	329	11/24/20 18:56	
Acenaphthylene	ug/kg	ND	329	11/24/20 18:56	
Aniline	ug/kg	ND	329	11/24/20 18:56	
Anthracene	ug/kg	ND	329	11/24/20 18:56	
Benzo(a)anthracene	ug/kg	ND	329	11/24/20 18:56	
Benzo(a)pyrene	ug/kg	ND	329	11/24/20 18:56	
Benzo(b)fluoranthene	ug/kg	ND	329	11/24/20 18:56	
Benzo(g,h,i)perylene	ug/kg	ND	329	11/24/20 18:56	
Benzo(k)fluoranthene	ug/kg	ND	329	11/24/20 18:56	
Benzoic Acid	ug/kg	ND	1640	11/24/20 18:56	
Benzyl alcohol	ug/kg	ND	658	11/24/20 18:56	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507319

Date: 11/30/2020 05:51 PM

METHOD BLANK: 3080887 Matrix: Solid

Associated Lab Samples: 92507319001

,		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
bis(2-Chloroethoxy)methane	ug/kg	ND	329	11/24/20 18:56	
bis(2-Chloroethyl) ether	ug/kg	ND	329	11/24/20 18:56	
bis(2-Ethylhexyl)phthalate	ug/kg	ND	329	11/24/20 18:56	
Butylbenzylphthalate	ug/kg	ND	329	11/24/20 18:56	
Chrysene	ug/kg	ND	329	11/24/20 18:56	
Di-n-butylphthalate	ug/kg	ND	329	11/24/20 18:56	
Di-n-octylphthalate	ug/kg	ND	329	11/24/20 18:56	
Dibenz(a,h)anthracene	ug/kg	ND	329	11/24/20 18:56	
Dibenzofuran	ug/kg	ND	329	11/24/20 18:56	
Diethylphthalate	ug/kg	ND	329	11/24/20 18:56	
Dimethylphthalate	ug/kg	ND	329	11/24/20 18:56	
Fluoranthene	ug/kg	ND	329	11/24/20 18:56	
Fluorene	ug/kg	ND	329	11/24/20 18:56	
Hexachloro-1,3-butadiene	ug/kg	ND	329	11/24/20 18:56	
Hexachlorobenzene	ug/kg	ND	329	11/24/20 18:56	
Hexachlorocyclopentadiene	ug/kg	ND	329	11/24/20 18:56	
Hexachloroethane	ug/kg	ND	329	11/24/20 18:56	
Indeno(1,2,3-cd)pyrene	ug/kg	ND	329	11/24/20 18:56	
Isophorone	ug/kg	ND	329	11/24/20 18:56	
N-Nitroso-di-n-propylamine	ug/kg	ND	329	11/24/20 18:56	
N-Nitrosodimethylamine	ug/kg	ND	329	11/24/20 18:56	
N-Nitrosodiphenylamine	ug/kg	ND	329	11/24/20 18:56	
Naphthalene	ug/kg	ND	329	11/24/20 18:56	
Nitrobenzene	ug/kg	ND	329	11/24/20 18:56	
Pentachlorophenol	ug/kg	ND	658	11/24/20 18:56	
Phenanthrene	ug/kg	ND	329	11/24/20 18:56	
Phenol	ug/kg	ND	329	11/24/20 18:56	
Pyrene	ug/kg	ND	329	11/24/20 18:56	
Pyridine	ug/kg	ND	329	11/24/20 18:56	
2,4,6-Tribromophenol (S)	%	79	18-130	11/24/20 18:56	
2-Fluorobiphenyl (S)	%	69	19-130	11/24/20 18:56	
2-Fluorophenol (S)	%	71	18-130	11/24/20 18:56	
Nitrobenzene-d5 (S)	%	70	21-130	11/24/20 18:56	
Phenol-d6 (S)	%	74	18-130	11/24/20 18:56	
Terphenyl-d14 (S)	%	83	15-130	11/24/20 18:56	

LABORATORY CONTROL SAMPLE:	3080888					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	1650	1130	69	47-130	
1,2-Dichlorobenzene	ug/kg	1650	1150	70	49-130	
1,3-Dichlorobenzene	ug/kg	1650	1160	70	48-130	
1,4-Dichlorobenzene	ug/kg	1650	1140	69	49-130	
1-Methylnaphthalene	ug/kg	1650	1110	67	54-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507319

Date: 11/30/2020 05:51 PM

LABORATORY CONTROL SAMPLE	3080888				
_		Spike	LCS	LCS	% Rec
Parameter	Units	Conc	Result	% Rec	Limits Qualifier
2,2'-Oxybis(1-chloropropane)	ug/kg	1650	1070	65	38-130
2,4,5-Trichlorophenol	ug/kg	1650	1270	77	49-130
2,4,6-Trichlorophenol	ug/kg	1650	1210	73	50-130
2,4-Dichlorophenol	ug/kg	1650	1180	72	51-130
2,4-Dimethylphenol	ug/kg	1650	1180	72	53-130
2,4-Dinitrophenol	ug/kg	8250	6390	77	39-130
2,4-Dinitrotoluene	ug/kg	1650	1370	83	53-130
2,6-Dinitrotoluene	ug/kg	1650	1340	81	55-130
2-Chloronaphthalene	ug/kg	1650	1180	71	48-130
2-Chlorophenol	ug/kg	1650	1170	71	54-130
2-Methylnaphthalene	ug/kg	1650	1150	70	57-130
2-Methylphenol(o-Cresol)	ug/kg	1650	1210	73	50-130
2-Nitroaniline	ug/kg	3300	2610	79	49-130
2-Nitrophenol	ug/kg	1650	1190	72	50-130
3&4-Methylphenol(m&p Cresol)	ug/kg	1650	1210	73	50-130
3,3'-Dichlorobenzidine	ug/kg	3300	2390	73	47-130
3-Nitroaniline	ug/kg	3300	2410	73	45-130 IL
1,6-Dinitro-2-methylphenol	ug/kg	3300	2910	88	50-142
I-Bromophenylphenyl ether	ug/kg	1650	1270	77	55-130
I-Chloro-3-methylphenol	ug/kg	3300	2550	77	52-130
I-Chloroaniline	ug/kg	3300	2220	67	49-130
I-Chlorophenylphenyl ether	ug/kg	1650	1260	76	53-130
l-Nitroaniline	ug/kg	3300	2630	80	51-130
I-Nitrophenol	ug/kg	8250	6850	83	40-130
Acenaphthene	ug/kg	1650	1200	72	56-130
Acenaphthylene	ug/kg	1650	1190	72	58-130
Aniline	ug/kg	1650	960	58	44-130
Anthracene	ug/kg	1650	1180	72	60-130
Benzo(a)anthracene	ug/kg	1650	1300	79	59-130
Benzo(a)pyrene	ug/kg	1650	1380	83	57-130
Benzo(b)fluoranthene	ug/kg	1650	1360	82	54-130
Benzo(g,h,i)perylene	ug/kg	1650	1330	80	59-130
Benzo(k)fluoranthene	ug/kg	1650	1410	85	54-130
Benzoic Acid	ug/kg ug/kg	8250	4900	59	19-130
Benzyl alcohol	ug/kg ug/kg	3300	2290	69	50-130
pis(2-Chloroethoxy)methane	ug/kg ug/kg	1650	1090	66	55-130
ois(2-Chloroethyl) ether	ug/kg ug/kg	1650	1190	72	53-130
• •		1650			
ois(2-Ethylhexyl)phthalate Butylbenzylphthalate	ug/kg	1650	1320 1290	80 78	58-130 46-138
, , ,	ug/kg	1650	1310	78 79	46-138 57-130
Chrysene	ug/kg				
Di-n-butylphthalate	ug/kg	1650	1330	81 70	57-130 57-130
Di-n-octylphthalate	ug/kg	1650	1310	79	57-130
Dibenz(a,h)anthracene	ug/kg	1650	1350	82 75	60-130
Dibenzofuran	ug/kg	1650	1240	75 70	54-130
Diethylphthalate	ug/kg	1650	1300	79 70	55-130
Dimethylphthalate	ug/kg	1650	1260	76	57-130
Fluoranthene	ug/kg	1650	1330	81	57-130

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507319

Date: 11/30/2020 05:51 PM

ABORATORY CONTROL SAMPLE:	3080888	0 11	1.00	1.00	0/ D	
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
luorene	ug/kg	1650	1250	76	56-130	
lexachloro-1,3-butadiene	ug/kg	1650	1060	64	41-130	
lexachlorobenzene	ug/kg	1650	1330	81	53-130	
exachlorocyclopentadiene	ug/kg	1650	698	42	23-130	
exachloroethane	ug/kg	1650	1160	70	48-130	
deno(1,2,3-cd)pyrene	ug/kg	1650	1350	82	61-130	
ophorone	ug/kg	1650	1160	70	49-130	
Nitroso-di-n-propylamine	ug/kg	1650	1170	71	52-130	
Nitrosodimethylamine	ug/kg	1650	1040	63	45-130	
Nitrosodiphenylamine	ug/kg	1650	1330	81	56-130	
phthalene	ug/kg	1650	1130	68	56-130	
obenzene	ug/kg	1650	1150	70	50-130	
ntachlorophenol	ug/kg	3300	2850	86	33-130	
enanthrene	ug/kg	1650	1340	81	60-130	
enol	ug/kg	1650	1190	72	54-130	
rene	ug/kg	1650	1300	79	61-130	
ridine	ug/kg	1650	851	52	35-130	
4,6-Tribromophenol (S)	%			86	18-130	
luorobiphenyl (S)	%			70	19-130	
luorophenol (S)	%			69	18-130	
obenzene-d5 (S)	%			68	21-130	
enol-d6 (S)	%			71	18-130	
phenyl-d14 (S)	%			82	15-130	

MATRIX SPIKE SAMPLE:	3080890						
		92507714001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/kg	ND	2110	1010	48	22-130	
1,2-Dichlorobenzene	ug/kg	ND	2110	1010	48	23-130	
1,3-Dichlorobenzene	ug/kg	ND	2110	976	46	26-130	
1,4-Dichlorobenzene	ug/kg	ND	2110	972	46	27-130	
1-Methylnaphthalene	ug/kg	ND	2110	1080	51	30-130	
2,2'-Oxybis(1-chloropropane)	ug/kg	ND	2110	914	43	30-130	
2,4,5-Trichlorophenol	ug/kg	ND	2110	1390	66	26-130	
2,4,6-Trichlorophenol	ug/kg	ND	2110	1280	61	23-130	
2,4-Dichlorophenol	ug/kg	ND	2110	1110	53	29-130	
2,4-Dimethylphenol	ug/kg	ND	2110	1150	54	13-130	
2,4-Dinitrophenol	ug/kg	ND	10600	8390	79	10-131	
2,4-Dinitrotoluene	ug/kg	ND	2110	1640	77	28-130	
2,6-Dinitrotoluene	ug/kg	ND	2110	1560	74	36-130	
2-Chloronaphthalene	ug/kg	ND	2110	1190	56	27-130	
2-Chlorophenol	ug/kg	ND	2110	1000	48	29-130	
2-Methylnaphthalene	ug/kg	ND	2110	1120	53	29-130	
2-Methylphenol(o-Cresol)	ug/kg	ND	2110	1070	51	20-130	
2-Nitroaniline	ug/kg	ND	4230	2960	70	29-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507319

Date: 11/30/2020 05:51 PM

MATRIX SPIKE SAMPLE:	3080890	92507714001	Spike	MS	MS	% Rec
Parameter	Units	Result	Conc.	Result	% Rec	Limits Qualifiers
2-Nitrophenol	ug/kg	ND	2110	1110	53	26-130
3&4-Methylphenol(m&p Cresol)	ug/kg	ND	2110	1070	51	10-176
3,3'-Dichlorobenzidine	ug/kg	ND	4230	2780	66	15-130
3-Nitroaniline	ug/kg	ND	4230	2920	69	28-130 IL
4,6-Dinitro-2-methylphenol	ug/kg	ND	4230	3490	83	15-132
4-Bromophenylphenyl ether	ug/kg	ND	2110	1450	68	35-130
4-Chloro-3-methylphenol	ug/kg	ND	4230	2810	67	30-130
4-Chloroaniline	ug/kg	ND	4230	2250	53	28-130
4-Chlorophenylphenyl ether	ug/kg	ND	2110	1380	65	32-130
4-Nitroaniline	ug/kg	ND	4230	3120	74	30-130
4-Nitrophenol	ug/kg	ND	10600	8450	80	17-130
Acenaphthene	ug/kg	ND	2110	1280	61	29-130
Acenaphthylene	ug/kg	ND	2110	1290	61	31-130
Aniline	ug/kg	ND	2110	810	38	10-130
Anthracene	ug/kg	ND	2110	1340	63	33-130
Benzo(a)anthracene	ug/kg	ND	2110	1520	72	32-130
Benzo(a)pyrene	ug/kg	ND	2110	1510	71	32-130
Benzo(b)fluoranthene	ug/kg	ND	2110	1490	7 1	33-130
Benzo(g,h,i)perylene	ug/kg	ND	2110	1470	70	28-130
Benzo(k)fluoranthene	ug/kg	ND	2110	1540	73	31-130
Benzoic Acid	ug/kg	ND	10600	2730	26	10-130
Benzyl alcohol	ug/kg	ND	4230	2090	49	31-130
bis(2-Chloroethoxy)methane	ug/kg	ND	2110	1010	48	30-130
bis(2-Chloroethyl) ether	ug/kg	ND	2110	975	46	68-130 M1
bis(2-Ethylhexyl)phthalate	ug/kg	ND	2110	1490	71	40-130 WT
Butylbenzylphthalate	ug/kg	ND	2110	1550	73	40-130
Chrysene	ug/kg	ND	2110	1550	73	30-130
Di-n-butylphthalate	ug/kg	ND	2110	1490	71	41-130
Di-n-octylphthalate	ug/kg	ND	2110	1500	71	42-130
Dibenz(a,h)anthracene	ug/kg	ND	2110	1510	71	27-130
Dibenzofuran	ug/kg	ND	2110	1380	65	32-130
Diethylphthalate	ug/kg	ND	2110	1510	72	40-130
Dimethylphthalate	ug/kg	ND	2110	1480	70	37-130
Fluoranthene	ug/kg	ND	2110	1510	70 71	26-130
Fluorene	ug/kg	ND	2110	1400	66	31-130
Hexachloro-1,3-butadiene	ug/kg	ND	2110	958	45	20-130
Hexachlorobenzene	ug/kg	ND	2110	1410	66	29-130
Hexachlorocyclopentadiene	ug/kg	ND	2110	660	31	10-130
		ND	2110	905	43	21-130
Hexachloroethane	ug/kg ug/kg	ND ND	2110	1480	70	28-130
Indeno(1,2,3-cd)pyrene Isophorone	ug/kg ug/kg	ND	2110	1170	70 55	32-130
N-Nitroso-di-n-propylamine		ND ND	2110	1040	55 49	
	ug/kg	ND ND				31-130 20-130
N-Nitrosodimethylamine	ug/kg	ND ND	2110	889	42	
N-Nitrosodiphenylamine	ug/kg	ND ND	2110	1480	70 50	32-130
Naphthalene	ug/kg		2110	1050	50 50	30-130
Nitrobenzene	ug/kg	ND ND	2110	1070	50	25-130
Pentachlorophenol	ug/kg	ND	4230	3310	78	10-130

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507319

Date: 11/30/2020 05:51 PM

MATRIX SPIKE SAMPLE:	3080890							
		92507714001	Spike	MS	MS	% Rec		
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers	
Phenanthrene	 ug/kg	ND	2110	1510	72	34-130		
Phenol	ug/kg	ND	2110	999	47	14-130		
Pyrene	ug/kg	ND	2110	1580	75	31-130		
Pyridine	ug/kg	ND	2110	296J	14	10-130		
2,4,6-Tribromophenol (S)	%				74	18-130		
2-Fluorobiphenyl (S)	%				52	19-130		
2-Fluorophenol (S)	%				45	18-130		
Nitrobenzene-d5 (S)	%				48	21-130		
Phenol-d6 (S)	%				46	18-130		
Terphenyl-d14 (S)	%				76	15-130		

SAMPLE DUPLICATE: 3080889						
Parameter	Units	92506832001 Result	Dup Result	RPD	Max RPD	Qualifiers
	-	ND				Qualificis
1,2,4-Trichlorobenzene	ug/kg	ND ND	ND		30	
1,2-Dichlorobenzene	ug/kg		ND		30	
1,3-Dichlorobenzene	ug/kg	ND	ND		30	
1,4-Dichlorobenzene	ug/kg	ND	ND		30	
1-Methylnaphthalene	ug/kg	ND	ND		30	
2,2'-Oxybis(1-chloropropane)	ug/kg	ND	ND		30	
2,4,5-Trichlorophenol	ug/kg	ND	ND		30	
2,4,6-Trichlorophenol	ug/kg	ND	ND		30	
2,4-Dichlorophenol	ug/kg	ND	ND		30	
2,4-Dimethylphenol	ug/kg	ND	ND		30	
2,4-Dinitrophenol	ug/kg	ND	ND		30	
2,4-Dinitrotoluene	ug/kg	ND	ND			
2,6-Dinitrotoluene	ug/kg	ND	ND		30	
2-Chloronaphthalene	ug/kg	ND	ND		30	
2-Chlorophenol	ug/kg	ND	ND		30	
2-Methylnaphthalene	ug/kg	ND	ND		30	
2-Methylphenol(o-Cresol)	ug/kg	ND	ND		30	
2-Nitroaniline	ug/kg	ND	ND		30	
2-Nitrophenol	ug/kg	ND	ND		30	
3&4-Methylphenol(m&p Cresol)	ug/kg	ND	ND		30	
3,3'-Dichlorobenzidine	ug/kg	ND	ND		30	
3-Nitroaniline	ug/kg	ND	ND		30	IL
4,6-Dinitro-2-methylphenol	ug/kg	ND	ND		30	
4-Bromophenylphenyl ether	ug/kg	ND	ND		30	
4-Chloro-3-methylphenol	ug/kg	ND	ND		30	
4-Chloroaniline	ug/kg	ND	ND		30	
4-Chlorophenylphenyl ether	ug/kg	ND	ND		30	
4-Nitroaniline	ug/kg	ND	ND		30	
4-Nitrophenol	ug/kg	ND	ND		30	
Acenaphthene	ug/kg	ND	ND		30	
Acenaphthylene	ug/kg	ND	ND		30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: AWI Facility 1690019302

Pace Project No.: 92507319

Date: 11/30/2020 05:51 PM

		92506832001	Dup		Max	
Parameter	Units	Result	Result	RPD	RPD RPD	
Aniline	ug/kg		ND		30	
Anthracene	ug/kg	ND	ND		30	
Benzo(a)anthracene	ug/kg	ND	ND		30	
Benzo(a)pyrene	ug/kg	ND	ND		30	
Benzo(b)fluoranthene	ug/kg	ND	ND		30	
Benzo(g,h,i)perylene	ug/kg	ND	ND		30	
Benzo(k)fluoranthene	ug/kg	ND	ND		30	
Benzoic Acid	ug/kg	ND	ND		30	
Benzyl alcohol	ug/kg	ND	ND		30	
ois(2-Chloroethoxy)methane	ug/kg	ND	ND		30	
ois(2-Chloroethyl) ether	ug/kg	ND	ND		30	
pis(2-Ethylhexyl)phthalate	ug/kg	ND	ND		30	
Butylbenzylphthalate	ug/kg	ND	ND		30	
Chrysene	ug/kg	ND	ND		30	
Di-n-butylphthalate	ug/kg	ND	ND		30	
Di-n-octylphthalate	ug/kg	ND	ND		30	
Dibenz(a,h)anthracene	ug/kg	ND	ND		30	
Dibenzofuran	ug/kg	ND	ND		30	
Diethylphthalate	ug/kg	ND	ND		30	
Dimethylphthalate	ug/kg	ND	ND		30	
Fluoranthene	ug/kg	ND	ND		30	
Fluorene	ug/kg	ND	ND		30	
lexachloro-1,3-butadiene	ug/kg	ND	ND		30	
Hexachlorobenzene	ug/kg	ND	ND		30	
Hexachlorocyclopentadiene	ug/kg	ND	ND		30	
Hexachloroethane	ug/kg	ND	ND		30	
ndeno(1,2,3-cd)pyrene	ug/kg	ND	ND		30	
sophorone	ug/kg	ND	ND		30	
N-Nitroso-di-n-propylamine	ug/kg	ND	ND		30	
N-Nitrosodimethylamine	ug/kg	ND	ND		30	
N-Nitrosodiphenylamine	ug/kg	ND	ND		30	
Naphthalene	ug/kg	ND	ND		30	
Nitrobenzene	ug/kg	ND	ND		30	
Pentachlorophenol	ug/kg	ND	ND		30	
Phenanthrene	ug/kg	ND	ND		30	
Phenol	ug/kg	ND	ND		30	
Pyrene	ug/kg	ND	ND		30	
Pyridine	ug/kg	ND	ND		30	
2,4,6-Tribromophenol (S)	%	59	51			
2-Fluorobiphenyl (S)	%	51	45			
2-Fluorophenol (S)	%	51	44			
Nitrobenzene-d5 (S)	%	53	45			
Phenol-d6 (S)	%	54	46			
Terphenyl-d14 (S)	%	59	49			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project:

AWI Facility 1690019302

Pace Project No.:

92507319

QC Batch:

QC Batch Method:

582034

ASTM D2974-87

Analysis Method:

ASTM D2974-87

Analysis Description:

Dry Weight/Percent Moisture

Laboratory:

Pace Analytical Services - Charlotte

Associated Lab Samples:

Date: 11/30/2020 05:51 PM

92507319001

SAMPLE DUPLICATE: 3078556

92507245001 Result

Dup Result

RPD

Max RPD

Qualifiers

Parameter Percent Moisture

Units

21.3

20.9

2

25

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



#### **QUALIFIERS**

Project: AWI Facility 1690019302

Pace Project No.: 92507319

#### **DEFINITIONS**

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

**DUP - Sample Duplicate** 

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

#### **ANALYTE QUALIFIERS**

Date: 11/30/2020 05:51 PM

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
IK	The recalculated concentration of the calibration standard(s) did not meet method acceptance criteria; this I
	he considered an estimated value

IL This analyte exceeded secondary source verification criteria low for the initial calibration. The reported results should be considered an estimated value.

L2 Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

v2 The continuing calibration verification was below the method acceptance limit. The analyte was not detected in the associated samples and the sensitivity of the instrument was verified with a reporting limit check standard.

v3 The continuing calibration verification was below the method acceptance limit. Any detection for the analyte in the associated samples may have low bias.

#### **REPORT OF LABORATORY ANALYSIS**

result should



## **QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: AWI Facility 1690019302

Pace Project No.: 92507319

Date: 11/30/2020 05:51 PM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92507319001 WC-01 20201119		EPA 3546	582744	EPA 8082A	582884
92507319001	WC-01 20201119	EPA 3050B	582413	EPA 6010D	582700
92507319001	WC-01 20201119	EPA 7471B	582668	EPA 7471B	582684
92507319001	WC-01 20201119	EPA 3546	582645	EPA 8270E	582888
92507319001	WC-01 20201119	EPA 5035A/5030B	581966	EPA 8260D	582027
92507319001	WC-01 20201119	ASTM D2974-87	582034		

Pace Analytical			is a LEGAL I	DÓCUMEN	cal Requ					-//	LAB			2507 		r Nur	nber or		
Company: Numbell US Co		wy .	Billing Info	1	i Aŭ				51-		Conta	925073	19	19 MEIJ EH		Y			
Address 60 Park was d	Corcle			San	7.1	_			4,7	IU	u	1200	000						
Reporto:	2		Email To: Site Collec	mail To:  + perfecte # @ ramboo (1. cern te Collection Info/Address:				** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other											
Customer Project Name/Number:	019307		State:	County/City: Time Zone Collected: [ ] PT [ ] MT [ ] CT [ ] ET										1 - F-	mple Receipt Chec				
	Site/Facility IC			Compliance Monitoring?  [ ] Yes [ ] No			A	28				1	Custod Collec	y Seals Present/I y Signatures Pres tor Signature Pre s Intact	ent :	Y N NA			
Collected By (print):	Purchase Ordo Quote #:	er #:			DW PWS II	on Code:			35	28		Correct Bott Sufficient V				t Bottles ient Volume s Received on Ice	Bottles Y N NA ent Volume Y N NA		
Collected By (signature):		ate Requir	me [Tyes []No						503	180	5			2/	USDA R Sample	Headspace Accepta egulated Soils as in Holding Time		YN NA YN NA YN NA	
Sample Disposal: [   Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:	[ ] 2 Day			-	Field Filter [ ] Yes Analysis: _	ed (if appli	cable):		02	10	Mcfd.				Residual Chlorine Present Y N NA Cl Strips: Sample pH Acceptable Y N NA pH Strips: Sulfide Present Y N NA			Y N NA	
* Matrix Codes (Insert in Matrix bo Product (P), Soil/Solid (SL), Oil (O									03	J	200				LAB US	cetate Strips:			
Customer Sample ID	Matrix *	Comp / Grab		ted (or ite Start) Time	Compos	ite End	Res Cl	# of Ctns	NON	NG NG	RCRA	2			Lab Sa	umple # / Comments			
WC-01 20201119	SL	Comp	_	12:00	11-14-20			6	X	X	X	1 9	7.0						
												2,7,03							
						ADI	*	1	9	- 2,	92.	- N		160	1				
									4 1-						11 -0				
											19.	50					- Ye		
Customer Bornayles / Special Condi	tions / Dossible	Unnarde:	Type of ic	e Used	Wet P	lue Dr	V N	lone		ISHO	ORT HOLE	S PRESENT (	<72 hours):	Y N N,	'A	Lab Sample Tempera	ture info	):	
Customer Nethanks / Special Condi	Packing Material Used:					7	-	Tracking	4.		9243		Temp Blank Rece Therm ID#: Cooler 1 Temp U						
					N NA	1	Sam	ples rece FEDEX	eived via: UPS C			Courier	Cooler 1 Therm C Cooler 1 Correcte	orr. Fact	or:oC				
Relinquished by/Company: (Signate		11-		6:45	Received b	181	16	tal	Pal			125	Table Acctn		ONLY	Comments:			
Relinquished by/Company: (Signat	ure)	Date	e/Time:	1	Received b	y/Company	/: ( <b>5</b>	ture		N	Da(e/Tir		Temp Prelo			Trip Blank Receive HCL MeOH	ed: Y TSP	N NA Other	
Relinquished by/Company: (Signat	ure)	Date	e/Time:		Received b	y/Company	/: (Signa	ature)			Date/Tir	ne:	PM: PB:	7. 4		Non Conformance YES / NO		age: f:	

	-1	ocument Na			Document Revised: October 28, 2020
Pace Analytical	Sample Con			:UR)	Page 1 of 2 Issuing Authority:
Pace Aliaiy is al	1 00 F	Document N AR-CS-033-F		54	Pace Carolinas Quality Office
Laboratory receiving samples:  Asheville	Hunters	sville 🗌	Raleigh	☐ Me	chanicsville Atlanta Kernersville
Sample Condition Upon Receipt  Client Name:	10		Pr	oject#	WO#: 92507319  Due Date: 11/30/20
Courier: Fed Ex Commercial Pace	IPS USP		4 <del>Delie</del> r	ît	PM: NJK Due Date: 11.00 CLIENT: GA-Ramboll
Custody Seal Present? Yes	Seals Intact?	Yes	□No		Date/Initials Person Examining Contents: 1119120
	Bubble Bags	None v	Oth	_	Biological Tissue Frozen?  Yes No N/A  One
Cooler Temp: Add/Subtraction Cooler Temp Corrected (*C):  USDA Regulated Soil ( N/A, water sample)	ract (°C)	<u>**                                   </u>	· Ichack may	ĺ	p should be above freezing to 6°C  Samples out of temp criteria. Samples on ice, cooling process as begun  samples originate from a foreign source (internationally,
Did samples originate in a quarantine zone within t	Te United States.	CA, 161, 01 3C	- Terreck map	incl	ding Hawaii and Puerto Rico)? Yes Comments/Discrepancy:
Chain of Custody Present?	2/	S No	□n/a	1.	
Samples Arrived within Hold Time?		S No	□N/A	2.	
Short Hold Time Analysis (<72 hr.)?	Y	s <b>⊒</b> 400	□N/A	3.	
Rush Turn Around Time Requested?	Y	s No	□N/A	4.	
Sufficient Volume?	-	No □No	□N/A	5.	
Correct Containers Used?			□n/a	6.	
-Pace Containers Used?			□N/A		
Containers Intact?	9	es 🔲 No	□N/A	7.	
Dissolved analysis: Samples Field Filtered?		es 🔲 No	N/A	8.	
Sample Labels Match COC?	. E	es   No	□N/A	9.	87
-Includes Date/Time/ID/Analysis Matrix					
Headspace in VOA Vials (>5-6mm)?		es 🔲 No	<b>□</b> N/A	10.	**
Trip Blank Present?			□ M7A	11.	19
Trip Blank Custody Seals Present?  COMMENTS/SAMPLE DISCREPANCY		res □No	N/A		Field Data Required? ☐Yes ☐No
			<del></del>		<u> </u>
.53 .50					of split containers:
CLIENT NOTIFICATION/RESOLUTION				20(1	or spine contament.
	,			<del></del>	
Person contacted:	8	. ———	Date,	Time:	
Project Manager SCURF Review:					Date:
Project Manager SRF Review:			84%		Date: Page 28 of 28

Document Revised: October 28, 2020 Page 1 of 2